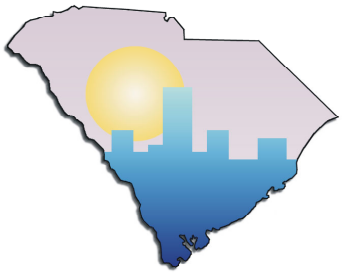
Catawba Regional Council of Governments
Post Office Box 450
Rock Hill, South Carolina 29731
(803) 327-9041
fax (803) 327-1912



University of South Carolina
School of the Environment
Columbia, South Carolina 29208
(803) 777-9061
fax (803) 777-0536

Shelly Launey, Director
National Clean Cities Program
Office of Transportation Technologies
Energy Efficiency and Renewable Energy
U.S. Department of Energy
1000 Independence Avenue, SW EE-34
Washington D.C. 20585

Dear Ms. Launey:

On behalf of the Palmetto State Clean Fuels Coalition, we thank you for taking the time to review our Coalition program plan. Your support of our efforts has been greatly appreciated. Review of your comments by our Program Plan Development workgroup helped the Coalition redirect some initiatives and refocus our efforts in stakeholder outreach. All of the clarifications you requested have been included both in the attached revised Coalition program plan and in the attached checklist. However, there are four issues that require further explanation before you begin the second review.

First, the Coalition has expanded to include Aiken County. During a program plan working session, a stakeholder mentioned that the inclusion of Aiken County would allow for a complete corridor from Atlanta, Georgia to Raleigh, North Carolina along Interstates I-20 and I-77. In addition, one of our most active stakeholders is located in Aiken. Following approval by the Core Planning Group, which is currently operating as the steering committee until designation, the addition of Aiken County was presented to and approved by the entire Coalition. The inclusion of this county has helped us diversify our stakeholder base and strengthen the Coalition as a whole, and we are very excited about the new possibilities for growth.

Secondly, in your review you note the importance of including school districts in our alternative fuel outreach effort. While we agree that school buses are often ideal candidates for alternative fuel, the districts in our state have no control over bus purchases, fuel use, or routes. All those decisions are made by the State Department of Education, which owns and operates the bus fleet. During recent meetings with Coalition coordinators, the Department of Education has stated a willingness to test biodiesel on the condition that using biodiesel will not void their warranties. We are working with them to provide assurance on this issue, and will continue our efforts to bring the Department of Education into our Coalition.

Next, your review made it clear that questions concerning the EPAct fleets within the Coalition area were not clearly addressed in the Program Plan. We have added a column to the fleet survey that distinguishes EPAct fleets from other fleets and provided a more thorough explanation in Section II. The new survey is attached as Appendix C.

Finally, we have added a list that clarifies the commitment of our stakeholders. "Committed" stakeholders are those who have signed the commitment letters and are full time members. "Potential" stakeholders are those who regularly attend the meetings but are awaiting permission from supervisors to sign the commitment letters. This delineation of the membership will help the Education Workgroup in their future stakeholder recruitment efforts. A copy of the letter of commitment is included in Appendix A and the membership status is attached as Appendix B.

The Palmetto State Clean Fuels Coalition is looking forward to joining the national Clean Cities network through official designation. Our stakeholders are excited about the future of our group and see many opportunities to work together with National Clean Cities in promoting the use of and infrastructure development for alternative fuels in South Carolina.

Should you have additional questions regarding the program plan, we would be happy to arrange a conference call with the coordinators at your convenience.

Sincerely.

Wendy Bell, Program Manager
Palmetto State Clean Fuels Coalition
803-327-9041
wbell@catawbacog.org

LeAnn Herren, Information Director
Palmetto State Clean Fuels Coalition
803-777-9061
herren@environ.sc.edu

PALMETTO STATE
CLEAN FUELS COALITION
PROGRAM PLAN

Prepared by

The Palmetto State Clean Fuels Coalition Stakeholders

Prepared for

United States Department of Energy (USDOE)
as part of an application for official USDOE *Clean Cities* designation

June 2003

TABLE OF CONTENTS

INTRODUCTION

The Palmetto State Clean Fuels Coalition is a voluntary partnership of stakeholders working together to reduce energy used for transportation and reduce the impacts of transportation on the quality of life and the environment of South Carolina. While no single strategy will solve the problems, expanding the use of alternatives to gasoline and diesel fuel is a crucial step. The common alternative fuels, as identified by the Energy Policy Act of 1992, are electricity, ethanol, methanol, natural gas, and liquefied petroleum gas (propane). These choices are considered more efficient, less dependent on foreign sources, environmentally friendly, sustainable and safe.

In an effort to gain support for the alternative fuels program and assistance from sources outside South Carolina, the Palmetto State Clean Fuels Coalition seeks to become recognized by the Department of Energy as a "Clean City". The Department of Energy Clean Cities Program is founded on the principle that motivated individuals working together to reach a common goal can best address energy and environmental concerns. The Department of Energy works with local grassroots partnerships of government, industries and communities to build coalitions, set goals and make the commitments necessary to establish the foundations of a viable alternative fuel market.

The Palmetto State Clean Fuels Coalition is committed to working towards this goal. The Coalition is reaching out to organizations and programs that show a similar interest in improving our nation's energy security through less dependence on foreign oil and reducing emissions of ozone, carbon monoxide and particulate matters associated with motor vehicle usage.

Clean Cities program development began in South Carolina in 1998 with the Palmetto State Clean Fuels Coalition being formally established in January 2002. The Coalition serves a population of 1,028,719 in the counties of Chester, Lancaster, Union, York, Richland, Lexington, Newberry, Fairfield and Aiken in South Carolina.

Following is the contact information for Coalition staff:

Wendy Bell
Program Manager
Senior Planner
Catawba Regional COG
PO Box 450
Rock Hill, SC 29731
(803) 327-9041
(803) 327-1912 (fax)
wbell@catawbacog.org

LeAnn Herren
Information Director
Director
USC
School of the Environment
Columbia, SC 29208
(803) 777-9061
(803) 777-0536
herren@environ.sc.edu

I. SOUTH CAROLINA CLEAN FUELS COALTION – BACKGROUND

A. National Clean Cities Program

The Department of Energy Clean Cities program was established in 1993 in accordance with the 1992 Energy Policy Act, Section 505. Under this program, voluntary commitments are made to (a) make alternative fuels available to the public; (b) convert both public and private motor vehicle fleets to alternative fuel vehicles; and (c) assure through automotive manufacturers that alternative fuel vehicles and vehicle services are available to the consumer marketplace. Clean Cities accomplishes these goals through a grassroots effort at the local level to develop infrastructure necessary to support alternative fuel vehicle usage. The backbone of the grassroots effort is a partnership between government and industry coordinated by a state alternative energy advocate.

The advantages of a successful Clean Cities program include reduced reliance on imported oil and improved local air quality. The United States currently relies heavily on the import of foreign oil to support the transportation sector, which thereby makes the system vulnerable to price spikes and shortages. Alternative fuels will allow the sector to diversify to a primarily domestic supply. Moreover, emissions from vehicles using standard fuels are the largest single contributor to air pollution in many urban areas. The emissions include high rates of ground-level ozone that is a contributing factor to smog, greenhouse gases, and global warming. Along with the environmental concerns, many studies have tied high levels of ozone to increased health care costs from respiratory illnesses such as asthma. Emissions tests conducted by the National Renewable Energy Laboratory demonstrated that alternative fuels would potentially reduce exhaust emissions thereby decreasing the associated adverse impact on public health and the environment from automobiles.

B. Clean Cities Efforts in South Carolina

The South Carolina Energy Office began efforts to establish Clean Cities programs in South Carolina as early as 1998. Energy Office representatives met with staff at the Center for Alternative Energy at York Technical College in an attempt to identify key players in the efforts. In consideration of the function and reputation of the Councils of Governments (COG) in the state, it was decided that the COGs would be in a good position to coordinate the Clean Cities efforts, encourage local participation, and promote legislation to support the program. Councils of Governments organizations provide member governments with a variety of services such as grant writing and administration, economic development assistance, planning, and management assistance. The enabling legislation creating the regional councils requires that a governing board to set the work program and budget be established, with the board consisting of greater than 50 percent local elected officials. Local, state and federal funding provide financial support for the regional councils. However, regardless of the state and federal funding, the regional councils work only at the direction of the local governments of South Carolina.

With key players identified, the Energy Office then pursued program formation in two areas of the state, the midlands area surrounding the State Capitol to be coordinated by the Central Midlands COG and the Catawba region in the upstate, a portion of the Charlotte Metropolitan area, to be coordinated by the Catawba Regional COG.

C. Centralina/Catawba Clean Fuels Coalition

The first efforts to form a Clean Cities Coalition in the Charlotte, North Carolina Metropolitan area began in early 1996. At this time, the North Carolina Department of Commerce held meetings, including an Alternative Vehicle Fuels Conference and Expo in Charlotte. Unfortunately enthusiasm for promoting alternative fuels was not high enough to sustain the efforts required for Clean Cities designation status.

In 1998, the South Carolina Energy Office initiated a second attempt to interest various organizations in both South Carolina and North Carolina in the Clean Cities Program. During the two years since the first organizational attempt, the region had become more aware of the Energy Policy Act requirements, the Clean Air Act and Ozone Awareness programs. All key players determined that the time was right to pursue designation.

Due to the inter-connectivity of the Catawba Region of South Carolina (Chester, Lancaster, Union and York Counties) with the Charlotte, North Carolina Metropolitan area, the decision was made to pursue a bi-state designation coordinated by two regional Councils of Government, the Catawba Regional COG in South Carolina and the Centralina COG in North Carolina. The COGs agreed to work together, naming joint coordinators each responsible for the activities in their respective states. Funding for the coalition was provided through contracts with the South Carolina Energy office and the State of North Carolina Department of Commerce, Energy Division.

Working together, the coordinators developed a stakeholder list representing business and industry, fuel providers, educators, and governments. In May 1999, over seventy potential stakeholders were invited to a kick-off meeting in Rock Hill to discuss the Clean Cities program and the designation process. The meeting was well attended and was covered by local television, radio and print media. A number of education meetings were held and a core group of stakeholders emerged committed to the designation process. In December 1999, a draft Clean Cities Program Plan was submitted to the U.S. Department of Energy for review. The Energy Department review comments included a request for additional data from a fleet survey, more specific goals and information on stakeholder recruitment. During the time the revision process was being undertaken, funding for the North Carolina portion of the coalition ended. Coalition development continued in South Carolina, but it quickly became evident that a bi-state effort was no longer viable. Meetings were held with the North Carolina representatives to ensure that, although bi-state efforts were ceasing, coordinated activities in the metropolitan area would continue. The continued coordination was essential, as the Catawba region of South Carolina is linked both economically and environmentally to the rapidly developing Charlotte, North Carolina Metropolitan area.

D. Central Midlands Clean Cities Coalition

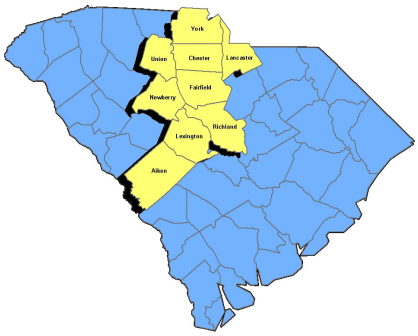
The Central Midlands Clean Cities Coalition was established in 1999. It represented the four counties of Fairfield, Lexington, Newberry and Richland. Fairfield and Newberry counties were developed as primarily agricultural communities and "boarding houses" for residents wishing to leave the sprawl of the neighboring counties of Lexington and Richland. The transportation systems in Newberry and Fairfield focus on private vehicle usage, with limited public transportation available. Neither county are areas of concern with regards to ozone attainment. Lexington and Richland counties are highly developed industrially and both are considered to be potential areas of violation for the federal 8-hour ozone standard. Richland County houses the South Carolina State Legislature, the University of South Carolina and the Fort Jackson Army Post. Lexington County is the fastest growing housing market in the Central Midlands region for both single family and multi-family dwellings. Both areas are highly populated and transportation systems are focused on single vehicle usage. The Central Midlands Regional Transit Authority operates a new fleet of buses in the region including seven natural gas buses. The bus system is located in Columbia, the county seat of Richland County and the capitol city of South Carolina.

The Central Midlands Clean Cities Coalition enjoyed a moderate degree of success from its inception in 1999 to the fall of 2001. The Coalition hosted an Advancing the Choice event in May of 2001, held regular stakeholder meetings, worked with a local utility and the COG Board of Directors to include compressed natural gas buses in the bus fleet, and took the lead in beginning legislative outreach efforts for alternative fuels. However, the coordinator of the Coalition left to a take a new position in October 2001 and the COG was unable to dedicate any further staff resources to the Clean Cities Program. At this point, the South Carolina Energy Office, the financial backer for the project, released a request for proposals to find a new home for the program. The award was granted to the University of South Carolina School of the Environment in February 2002.

E. Palmetto State Clean Fuels Coalition

At about the same time as the award of the Central Midlands area contract to the University of South Carolina, the Energy Office and the Centralina/Catawba Clean Fuels Coalition started to discuss viable alternatives to the bi-state effort. It was decided that the most logical step would be to merge the two South Carolina Coalitions into a single eight county entity covering the Central Midlands and Catawba Regions of South Carolina. This made sense for a variety of reasons, but primarily as the two Coalitions were contiguous, shared many of the same stakeholders and were located along the Interstate 77 Corridor. The original counties in the coalition area included the four counties of the Catawba Region—Chester, Lancaster, Union and York and the four counties of the Central Midlands Region—Fairfield, Newberry, Richland and Lexington. In April 2003, the PSCFC Core Planning Group moved to include Aiken County which is located in the Lower Savannah Region of the State. This was a logical inclusion for several reasons but primarily due to the completion of a potential 'clean corridor' extending from Atlanta, Georgia to Raleigh, North Carolina through South Carolina along I-20, I-26, and I-77. Additionally, Aiken

County is home to one of the Coalition's most active stakehdolders—United Energy Distributors, Inc—owner and operator of the first biofueling facility in the nation. With inclusion of Aiken County, the Palmetto State Clean Fuels Coalition now covers a 9 county region that bisects the mid-section of the state.



The United States Census Bureau reported that the total population of the nine county Palmetto State Clean Fuels Coalition area was 1,028,719 in 2000 representing a 17.3% increase over the 1990 population of 878,258. The coalition area contains four of the fastest growing counties in the State of South Carolina—Lexington, Richland, York, and Aiken. Lexington County exhibited a nearly 29% population increase from 1990 to 2000 and York County, the largest county in the Catawba Region, experienced a growth rate of over 25% during the same time period. York County is the third most populous county in the Charlotte North Carolina Metropolitan Region and by the year 2015 is projected to be the second most populated county trailing only Mecklenburg.

The Palmetto State Clean Fuels Coalition area includes portions of three Metropolitan Statistical Areas (MSA). The Columbia, South Carolina MSA covers Lexington and Richland Counties, Aiken County is included in the Augusta-Aiken MSA, while York County is included in the Charlotte-Gastonia-Rock Hill Metropolitan Statistical Area. The 2000 population for the Columbia MSA was 536,691 up 18.4% from the 1990 figure of 453,331 while the 2000 population for the South Carolina portion of the Augusta-Aiken MSA was 142,552 up nearly 18% and the South Carolina portion of the Charlotte-Gastonia-Rock Hill MSA was 164,614 up over 25% from the 1990 population.

Growth in the Palmetto State Clean Fuels Coalition area has been rapid over the past twenty years and is projected to continue. Areas experiencing rapid growth are often confronted with threats to the local environment and to the overall quality of life. The Palmetto State Clean Fuels Coalition area is no exception. Along with the growth in the area has come sprawl creating a greater dependence on automobiles for transportation. Currently, all areas included in the coalition are classified as being in attainment under the Clean Air Act of 1990. However, when the revised EPA ozone standards go into effect, review of data collected at air quality monitoring stations indicate that certain areas within the coalition region may not meet the new standards. The areas of concern include Aiken, Lexington, Richland, York, Chester and Union Counties.

The Palmetto State Clean Fuels Coalition area has an exceptional transportation network. The region sits along a major north-south interstate system, I-77 with east-west I-26 and I-20 bisecting the Central Midlands area of the coalition and extending through Aiken County into Augusta, Georgia. This transportation network extends from the Georgia State line at Interstate 20 in the Aiken area near the United Energy biofueling facility through Columbia at the state fleet ethanol facility off Interstate 77, then north along Interstate 77 to the Rock Hill/Charlotte Metro area where ethanol infrastructure is under development.

Aiken is a midway point between the existing alternative fuel stations in Atlanta, Georgia and the new facilities in Columbia, South Carolina. This is a very heavily traveled corridor. Within South Carolina, the corridor between Columbia and Rock Hill is a high traffic zone between the state capitol and the industrialized upstate. Additionally, the city of Rock Hill is adjacent to Charlotte, North Carolina and is a halfway point between Columbia, South Carolina and Raleigh, North Carolina. The development of the corridor is the first step in providing easy access to alternative fuels to fleets and private vehicles. As the corridor develops, additional routes will be added between Columbia and Charleston in state and Atlanta to Charlotte and Raleigh through the upstate. The development of these corridors will be essential in keeping with the spirit of the Energy Policy Act of 1992, by guaranteeing that the alternative fuel vehicles purchased and converted are actually driving on alternative fuels.

II. ENERGY POLICY ACT AND CLEAN CITIES AMENDMENTS

A. Compliance with Energy Policy Act of 1992

The Energy Policy Act (EPAct) of 1992 was designed to accelerate the usage of alternative fuels within the transportation sector. The goals set out in the legislation were to replace 10% of petroleum based motor fuels by 2000 and 30% of petroleum base fuels by 2010. Alternative fuels were, and continue to be, seen as a means to decrease the nations' dependence on foreign oil and increase energy security through domestically produced products. At this time, alternative fuels are defined as any fuel that is substantially non-petroleum, yields energy security and demonstrates environmental benefits. Fuels currently recognized as alternative fuels include: methanol and denatured ethanol as alcohol fuels containing more than 70% alcohol, natural gas either compressed or liquefied, liquefied petroleum gas, hydrogen, coal derived liquid fuels, fuels derived from biological materials and electricity which also includes solar power.

Vehicles that run off alternative fuels may be either dedicated (runs only on alternative fuels) or dual fuel, also known as bi-fuel or flex-fuel (runs on standard or alternative fuels). Purchasing requirements for these vehicles, as mandated under the Energy Policy Act are listed in the table below. Purchase requirements affect state, federal and many alternative fuel provider fleets in urban areas with a population above 250,000 as noted in the 1980 census.

Year	Federal	State	Alternative Fuel Provider	Municipal and Private*
1997	33%	10%	30%	
1998	50%	15%	50%	
1999	75%	25%	70%	
2000	75%	50%	90%	
2001	75%	75%	90%	
2002	75%	75%	90%	20%
2003	75%	75%	90%	40%
2004	75%	75%	90%	60%
2005	75%	75%	90%	70%
2006	75%	75%	90%	70%

*Percentages listed for municipal and private fleets are tentative; there are currently no mandates under the EPAct

Several fleets operating within the nine-county PSCFC area currently fall under EPACT mandates. These fleets include:

- South Carolina State Fleet Management
- General Services Administration
  - Fort Jackson
- Savannah River Site
- United States Postal Service
- Duke Energy
- South Carolina Electric and Gas (SCE&G)

According to information provided by these EPAct mandated fleets, all are in compliance with EPAct Purchase Requirements. Currently, SCE&G, at the recommendation of the US Department of Energy, is in the process of applying for an exemption to purchase mandates. The SCE&G fleet manager did not receive permission to disclose fleet data to the PSCFC prior to the completion of the program plan. PSCFC staff will monitor this EPAct application process and will continue attempts to obtain fleet information.

The State of South Carolina made the decision that, for EPAct mandates, all State agencies will report together as one fleet with State Fleet Management responsible for submitting reports to DOE. This means that all state-owned vehicles are covered by EPAct and are in compliance with purchase mandates.

B. Clean Air Act Amendments of 1990 and Relevant Local Programs

The Clean Air Act Amendments of 1977 were passed in an attempt to improve the overall air quality of the United States. While significant improvements were seen, urban air problems from ozone (smog), carbon monoxide, and particulates persisted. It has been estimated in studies that over 100 million people were still living in cities with ozone levels above acceptable health levels after implementation of the required operational changes of the 1977 Amendments. The Clean Air Act Amendments of 1990 created a strategy for the country to address the problem of urban smog. It gave some large metropolises additional time to meet air standards (for example twenty additional years for ozone in Los Angles) but it requires constant progress in reducing emissions. It also established the designation of "non-attainment" geographic areas and the associated sanctions that the federal government can impose. While vehicles built today emit fewer pollutants than during the initial Clean Air Act period (60% to 80% in most cases), cars and trucks still account for almost 50% of the ozone precursors and up to 90% of the carbon monoxide emissions in urban areas. This high percentage can be accounted for in the rapid increase in the number of vehicles on the road and the number of miles driven annually. EPA studies have shown that this unforeseen growth has offset he majority of gains from vehicle emission control systems implemented during the initial Clean Air Act Amendments.

In an effort to address the problem, the Amendments allowed EPA to create new initiatives to reinforce the original intent of the reduction goals from mobile sources. One such initiative is the Clean Fuel Fleet Program that requires fleets in urban areas to incorporate

vehicles that meet clean fuels emissions standards. Clean fuels are defined by EPA to include alternative fuels, oxygenated fuels, reformulated gasoline and conventional gasoline with additional emission control equipment on the vehicle. A clean fuel vehicle is a vehicle that is certified to meet or beat the Low Emission Vehicle standards and that is operating only on the fuel used during the certification process. Fleets currently regulated under the program include federal, state, municipal, fuel provider and private fleets, of at least 10 vehicles – including light-duty automobiles, trucks (8,500 lbs or less) or medium duty vehicles (8,500 - 26,000 lbs). The areas affected by the program are cities or areas with a population of at least 250,000 in the 1980 census that have been classified by the state environmental agency as being either extreme, severe or serious non-attainment areas for ozone or carbon monoxide. States may opt out of the Clean Fuels Fleet Program providing an alternative program is adopted that will at a minimum reach the same emission reduction goals established in the federal program.

The state of South Carolina had not established an alternative program by the 1998 deadline and must therefore comply with the federal Clean Fuel Fleet Program. Currently, no counties have been officially designated as non-attainment, however areas within the Coalition are considered borderline at this time including York, Richland, Lexington and Aiken. In an effort to reduce emissions and avoid potential non-attainment designation, the state is moving forward to implement the Clean Fuel Fleet Program in it's metropolitan areas and undertaking an Early Action Plan for Ozone Attainment.

III. STATE/LOCAL LAWS AND INITIATIVES

A. State Laws and Policies

Executive Order 2001-35
Following the tragic events of September 11, 2001, Governor Jim Hodges acknowledged the need to increase the usage of alternative fuels in South Carolina through Executive Order 2001-35. The Executive Order described the instability of international oil markets, re-stated South Carolina's commitment to implementation of the Energy Policy Act, noted that South Carolina was a potential producer of biofuels, and recognized the work of the state Clean Cities Coalitions. A copy of the Executive Order is included in Appendix F.

The Executive Order is specifically worded to:

- Strongly support the efforts of South Carolina's Clean Cities efforts and private business to increase the use of alternative fuels in South Carolina
- Require that all state agencies operating alternative fuel vehicles use alternative fuels, whenever practical and economically feasible.

Alternative Fuel Vehicle Legislation - Five-Year Repeal of Motor Fuels Tax
On April 11, 2002, House Bill 5103 was introduced into the South Carolina House of Representatives. The following week, a companion bill was introduced to the South Carolina Senate. Both pieces of legislation were designed to accelerate the use of ethanol and biodiesel in South Carolina by repealing the motor fuels tax (currently $0.16/gallon)

for five years. It permanently repeals that tax on compressed natural gas, propane and liquefied natural gas, but includes a proviso that allows the State Department of Transportation to collect a "road use fee" from these vehicles instead. This fee is assessed at the time the vehicle is purchased and is equal to 2.5% of the total price of the vehicle. The goal of this legislation is to increase the availability of ethanol and biodiesel in the state, as these two fuels can be produced using products grown and readily available in South Carolina. The legislation was referred to committee and was not passed. The legislation will be pre-filed in Fall 2003 for consideration in the 2004 legislative session.

The repeal of the motor fuels tax would drop the "price per gallon" of the E-85 fuel to a level similar to that of gasoline. State contracts could then be established for the alternative fuels at rates within the agency budget for fuels. Suppliers have indicated that costs for alternative fuels remain high because of transportation fees. During the five years of the motor tax repeal, state agencies and trade associations have indicated intent to pursue the placement of biofuels production facilities within the state. This construction would eliminate the additional transportation fees for alternative fuels, keeping it level with gasoline while developing additional markets for South Carolina agriculture.

The legislation is supported by the South Carolina Department of Health and Environmental Control, South Carolina Department of Transportation, South Carolina Soybean Board, South Carolina Trucking Association, State Fleet Management, Palmetto State Clean Fuels Coalition, United Energy Distributors Incorporated, South Carolina Sierra Club, South Carolina Governor's Office, South Carolina Farm Bureau, and the South Carolina Department of Agriculture. A Legislative Fact Sheet is included in Appendix G.

South Carolina State Law Section 59-67-190 Idling of School Buses
On August 14, 2001, in an effort to reduce unnecessary air pollution, the South Carolina Department of Education Office of the General Counsel interpreted the State Law regarding the presence of operators of school buses to mean that the school bus driver assigned to the school bus must be in the immediate vicinity of the bus, such as loading students while using a lift or conducting a pre-trip inspection. The driver cannot walk away from the bus while it is running, as is sometimes done to let the bus warm up. This means that when a bus is running there must be one driver per bus, not one driver cranking and warming multiple buses. The South Carolina Department of Education also established a guideline that buses should not be allowed to warm up longer than ten minutes before the bus route begins. However, during cold weather drivers are allowed to crank the engine a maximum of an additional five minutes before the route begins for the purpose of heating the interior of the bus, and clearing/defrosting the windshield and windows in the driver's area. If heating/defrosting is not necessary, the additional minutes are not allowed. These guidelines are necessary because additional engine warm-up time adds hours of operation to the engine, increasing fuel consumption, cost, and emissions.

Liquefied Petroleum Gas Board
South Carolina Code of Laws §40-82 established the Liquefied Petroleum Gas Board. The Board's powers and duties include ensuring that the laws of South Carolina affecting liquefied petroleum gas are executed faithfully, instituting proceedings for violations of

laws relevant to liquefied petroleum gas and promulgating and enforcing regulations relating to liquefied petroleum gas and liquefied petroleum gas equipment. This Board has made market expansion of liquefied petroleum gas advantageous to business in South Carolina. A steady increase is being seen in small businesses offering filling services.

B. State and Local Initiatives

South Carolina Department of Health & Environmental Control Ozone Action Project
The South Carolina Spare the Air campaign was created by the South Carolina Department of Health and Environmental Control Bureau of Air Quality to educate citizens about air quality and its relationship to their health. For example, ground-level ozone is currently a primary focus of these efforts due to concerns for citizens with breathing problems such as asthma. During the period of May 1 through September 30, the SCDHEC staff meteorologists produce daily ozone forecasts. The forecasts are provided utilizing the Air Quality Index (AQI) color scale to indicate levels of ozone in the air. Each category in the AQI represented by a color, also includes a cautionary statement for air conditions and the appropriate citizen response. Green represents the level being good, yellow for moderate conditions, orange for unhealthy to sensitive groups and red for unhealthy to everyone.

The forecasts are broadcast on local television and radio stations during the daily weather forecasts, distributed to a list serve via e-mail and through an agency created website (www.scdhec.net/baq/ozone). In the high traffic areas surrounding Columbia and Greenville, warnings are also posted on Department of Transportation's message boards along the major interstates. To promote the efforts, former South Carolina Governor Jim Hodges declared the first week of May to be "Ozone Awareness Week". SCDHEC also hosts an official "Ozone Season Kick-Off" for partner organizations in three areas of the state (upstate, midlands and low country) to annually review the warning system and ozone reduction opportunities within South Carolina.

Additionally, other elements that fall under the "Spare the Air" initiative involve education and outreach to school-aged youth and persons with chronic respiratory conditions. To assist SCDHEC efforts in preventing future air pollution, the Bureau of Air Quality staff work with teachers and students through classroom resources such as prepared special lesson plans, presentations, and exhibits. In cooperation with the Bureau of Land and Water Management, the SCDHEC designated outreach program, training in the environmental curriculum titled "Action for a Cleaner Tomorrow" is provided to teachers across the state. The South Carolina Energy Office, a stakeholder in the Coalition, recently worked with SCDHEC to incorporate alternative fuel lessons into the curriculum. Teachers are also encouraged to participate in the "Ozone Action Classroom" initiative to educate students on the dangers of ground-level ozone. Additional partners in the "Ozone Action Classroom" include the South Carolina Asthma Planning Alliance and the South Carolina Public Health Association. These groups are together, and individually, working to promote awareness of the link between ground-level ozone and air quality conditions that can trigger asthma attacks in persons with respiratory conditions.

South Carolina Early Action Plan
In early 2002, the South Carolina Department of Health and Environmental Control began working on a means for the State to meet the ozone standards to potentially avoid compliance issues. U.S. Environmental Protection Agency Region IV provided an option for areas that were meeting the one-hour standard to attain the 8-hour ozone standard by December 31, 2007, and obtain cleaner air sooner than currently federally mandated. This option offers a more expeditious time frame for achieving emissions reductions, while providing "fail-safe" provisions for the area to revert to the traditional SIP process if specific milestones are not met. EPA will move forward with the designation process (attainment or non-attainment) but will defer the effective date, thus the prescriptive requirements of non-attainment designations, provided all terms and conditions of an Early Action Compact (EAC) are being met.

Forty-five counties in South Carolina elected to participate in the development of an Early Action State Implementation Plan (EAP). Participants in the EAC include the counties, SCDHEC and the EPA. All of these parties agree to work together to implement federal, state and local emissions control measures that will allow the non-attainment areas to attain the 8-hour ozone standard earlier and therefore avoid implementing costly prescriptive measures. The EAC requires that all counties submit a local Early Action Plan to SCDHEC by March 31, 2004.

Through the development and implementation of an EAP, participating counties will implement local emission reduction strategies that are economically feasible and that make sense for their county. SCDHEC has encouraged these counties to consider alternative fuels as part of their emission reduction strategy. This has resulted in counties throughout the state calling to express an interest in the Palmetto State Clean Fuels Coalition.

The state is also proposing new and/or modifications to regulations that will assist non-attainment areas. The State programs could include a 'Best Available Control Technology' (BACT) regulation; modifications to the open burning regulations and a process to assure transportation plans, programs, and projects consider air quality goals. Additionally, the state is working on a program to be adopted by all state agencies. A workgroup, Clean Air Initiatives for State Government Entities (CAIGE) has been formed to develop ideas and recommendations for emission reduction strategies for state government entities.

A number of federal control measures are in place and/or will be phased in over the next several years. These programs include the Tier II and Low Sulfur Gasoline and also the NOx SIP call. All of these programs have been developed to help areas attain air quality standards and achieve *'cleaner air sooner in South Carolina*'.

Energy Resource Center (formerly Center for Alternative Energy), York Technical College
York Technical College, located in Rock Hill, South Carolina, is the location of the Energy Resource Center. The Center is a member of the National Alternative Fuels Training Consortium. As one of the 19 post-secondary institutions in the consortium, York Technical College is recognized nationally for its efforts in promoting alternative fuel vehicles and legislation that relates to alternative fuel vehicles. The Center provides

educational opportunities to individuals, industries and government agencies to support the introduction and growth of AFVs as a mode of transportation. The Center also is involved in assessing the impact of alternative fuel vehicles on the environment.

York Tech is involved with electric vehicle program partners across the nation, such as General Motors, Alabama Power, Boston Edison, Duke Power, Texas A&M University and Pacific Gas and Electric, to name a few. In addition, they also have compressed natural gas program partners across the country, such as U.S. Department of Energy, Portland Community College, University of West Virginia, New England Institute of Technology, and Louisiana Tech College. The Palmetto State Clean Fuels Coalition is fortunate to have such an industry leader involved with this program. York Tech has committed to developing education programs with the educational workgroup, conducting workshops for potential stakeholders and providing guidance in fuel and vehicle selection to existing Coalition members.

Duke Power Company
Duke Power Company has implemented a program that provides a reduced rate to South Carolina consumers for electricity used to charge an electric vehicle. The new rate for electricity under the program is $0.03 per kilowatt-hour off-peak times and $0.09 per kilowatt-hour on-peak times. Duke Power Company is a fuel provider to the northern portion of the Coalition including Chester, Lancaster and York counties. For more information on the program, please contact Tim Shawver at (704) 382-4449, via email at tsshawve@duke-energy.com or visit the website at www.duke-energy.com.

IV. GRANT FUNDING SOUGHT TO INCREASE AFV USAGE

A significant concern to the supporters of alternative fuel programs in South Carolina is the lack of funding or incentives for private fleets to convert to the use of alternative fuels. Many of the alternative fuel vehicles currently operating in the state were at least partially funded by governmental grants or state fees. Grants and state fee funds have been proposed to "buy-down" the cost of alternative fuels to meet the level of the state contract prices for gasoline and diesel. This means the price of alternative fuels for private fleets remain significantly above that of standard fuels and in the current economic climate, this makes conversions unlikely without incentives. In addition, no special financing is available from local banks to encourage fleet conversion.

A. Funds Received

Columbia: Ethanol
The Palmetto State Clean Fuels Coalition is proud to have been a partner with the South Carolina Department of Health and Environmental Control (SCDHEC) and the South Carolina Energy Office as they worked to open the first ethanol refueling station in Columbia. This station, located at the existing SCDHEC refueling facility at 2600 Bull Street, is a first in many respects. It is the first time ethanol has been available for use by state government fleets in Columbia, the SCDHEC refueling station, while previously available to state agencies, is now easier to access for use and billing with a direct link to

the PS Energy Group, and it is the first time the SCDHEC facility has expanded its operations to include federal and local government fleets for refueling.

Columbia: Compressed Natural Gas

The Central Midlands Regional Transit Authority (CMRTA) and the South Carolina Electric and Gas Company (SCE&G) signed a memorandum of agreement (MOA) in 2000 to retrofit and upgrade a compressed natural gas fueling facility in Columbia, South Carolina. Funding for the retrofit was granted through the State Energy Office. The city of Columbia is located in Richland County, which is currently listed as a "potential" non-attainment area for the 8-hour ozone standard. Should the area be officially designated as non-attainment, alternative transportation will be beneficial to help lower air emissions. Under the MOA, the transit bus fleet in Columbia was replaced due to age and emissions. The Regional Transit Authority agreed to procure seven compressed natural gas fueled buses for use in the Columbia area, should a ready source of fuel be made available. As outlined in the MOA, construction on the fast-fill CNG facility began in December 2002 and is now operational. A card-reader system has been installed at this site that will ultimately allow the fuel to be accessible to fleets as well as the general public. A fuel-billing contract is currently under negotiation. The Regional Transit Authority assumed responsibility for the bus fleet in 2001 and planning for the transportation program is being completed by the Department of Transportation, the Central Midlands Council of Governments, and associated agencies. The Regional Transit Authority now operates seven compressed natural gas buses and 41 clean diesel buses.

Catawba Region: Ethanol

SCDHEC directed $440,000 of an $11.2 million fine levied against Willamette Industries by the Environmental Protection Agency into a Supplemental Environmental Project (SEP) for community improvement to be coordinated by the Catawba Regional Council of Governments (CRCOG). The SEP was designed to help clean up the air in the violation area covering Chester, York, Lancaster and Union counties.

As part of the settlement against the paper company, Willamette was required to upgrade its plant in Chester County and pay three agencies in South Carolina approximately $1 million dollars in fines. Chester County and the state shared $600,000 of the settlement for general purposes. The Catawba Regional COG was encouraged by SCDHEC to use a portion of the settlement to work with the Palmetto State Clean Fuels Coalition to develop ethanol refueling stations in the four-county Catawba region. The agreement between the SCDHEC and the CRCOG was recently revised to increase the scope of the project to include sites outside the four-county boundary with emphasis on development of infrastructure along major interstate corridors connecting urbanized areas of the state. Based on cost estimates received to date, it is anticipated that at least ten sites will be established. These stations, are expected to be put in place over the next two years, will be open to federal, state and local fleets, private fleets and individual citizens. Additionally, a portion of the settlement money has been designated for the marketing of E-85 throughout the state.

The Palmetto State Clean Fuels Coalition is working to market the availability of the infrastructure program to fuel vendors across the state. At this time, two vendors have agreed to install infrastructure to provide E-85 to the public. Cost estimates are currently being compiled for infrastructure in York, Lancaster, Richland and Lexington Counties. Additional sites are anticipated in Aiken County as well. The sites should be open for business by Winter 2003 in the Columbia area—an area with a heavy concentration of state and federal fleet FFVs.

In addition to the infrastructure development, this funding source also will provide monies for marketing of alternative fuels and coordination of the Palmetto State Clean Fuels Coalition through 2005.

B. Proposals in Development

Columbia: Mass Transit Expansion and Biodiesel

The University of South Carolina Transportation Department has approached the School of the Environment with a proposal to add a student usage fee of $25 to the 2003-2004 tuition bill. This usage fee would, in part, be used to complete an agreement between USC and the Regional Transit Authority to expand alternative transportation to students. Transit authority routes would be adapted to serve high student population areas and thereby decrease single vehicle usage on campus. Students would be allowed to ride all Transit Authority vehicles using only student identification badges. This would aid the university in handling parking problems at a "downtown" school, while assisting the city of Columbia in reducing emissions levels.

University of South Carolina School of the Environment is preparing a proposal to the Turner Foundation for a program to increase faculty and staff usage of alternative transportation through the Regional Transit Authority. USC is located in the heart of Richland County, a potential "non-attainment" area for South Carolina and emissions reductions are needed. Currently, a route of the Transit Authority trolley system serves the university, but ridership is extremely low. The new proposal titled "Let's do Lunch" would have special incentives such as drawings, free passes and reduced fees for faculty and staff using the trolley system to access restaurants in the campus area. This would reduce single vehicle miles driven during the day by university staff, resulting in a lower emission level in the city. Additionally, the Regional Transit Authority is investigating the use of biodiesel in the six trolleys.

The University of South Carolina Motor Vehicles division is currently in talks with the contracted fuels supplier to replace all the diesel used in the student bus system with biodiesel. A successful test was run in the university shuttle system with biodiesel during the 2002-2003 school year. The full replacement of diesel would require the purchase of 100 gallons of biodiesel per day during the 142 days of classes. However, with the proposed changes to the parking system for fall 2003 semester requiring increased shuttle and bus services to satellite sites, the diesel purchased could as much as double by the spring of 2004. Rates for replacement of the diesel with biodiesel in the fuels contract are being negotiated.

Estill: Biodiesel Production Facility

The South Carolina Energy Office and the South Carolina Soybean Board (SCSB), in cooperation with Carolina Soya LLC, received funding from the Southeast Regional Biomass Energy Program (SERBEP) for funding to conduct a feasibility study for the development of a biodiesel production facility near the Carolina Soya facility in Estill, South Carolina. Carolina Soya is a soybean crushing facility that buys soybeans from South Carolina and several neighboring states. The soybeans are crushed into two primary byproducts: soybean meal and soybean oil. The majority of the soybean meal is sold as livestock feed to farmers in South Carolina and neighboring states. Due to agricultural focus in the southern states, finding a market for the soybean meal has not been a problem for the company. The market for soybean oil, on the other hand, has been slow to develop. It has been noted by the partners study that producing alkyl esters from the oil and using it as an additive to diesel fuel is a natural fit.

The result of the program will be a document identifying the commercial potential of a biodiesel production facility in Estill, South Carolina. The feasibility study is scheduled to be complete July 2003. If the proposed venture is determined to have the potential for profit, this document would then be used in the development of a business plan to encourage investors interested in biodiesel production to consider South Carolina. It would also provide a technically sound basis for potential policy support and interest in biodiesel as an alternative fuel in the state, by showing the utilization of a "homegrown" product.

Statewide: Biodiesel Promotion and Education Project

The South Carolina Soybean Board in cooperation with the South Carolina Energy Office and the Palmetto State Clean Fuels Coalition applied to the National Soybean Board for funds to promote and expand the use of biodiesel fuels in South Carolina. The Soybean Board received funding and thus far the funds have been used to market biodiesel to targeted groups such as the agricultural community and to expand the use and production of biodiesel in the state. Marketing efforts have included bringing in a representative from the National Biodiesel Board to speak at the annual meeting of the South Carolina Soybean Association.

Statewide: Biofuels Storage Facility

The PSCF is working with United Energy Distributors (UED) to secure funding for a biofuels storage facility in Aiken County. United Energy wants to clean three 80,000 gallon tanks to store ethanol and biodiesel. This would allow bulk purchases and reduce transmission costs. UED estimates end-user cost savings of .10 cents per gallon for customers in Georgia and South Carolina.

Statewide: Propane Education Research Council Project

Coalition staff coordinated meetings with representatives of the Propane Education Research Council (PERC) and South Carolina State Fleet Management in an effort to develop a propane fueling infrastructure in South Carolina. This fueling infrastructure would be available to state, local government, and federal fleets through the government credit card system and for standard purchases from the general public. The goal of PERC is to develop propane fueling corridors connecting the Atlanta, Georgia, area with the

Columbia, Rock Hill and Greenville/Spartanburg areas of South Carolina then into the Charlotte and Raleigh areas of North Carolina.

South Carolina State Fleet Management is pursuing the development of two propane refueling sites to be located at two South Carolina Department of Transportation (SCDOT) sites in the Columbia area.

National Ethanol Vehicle Coalition Multi-State Infrastructure Project

The Palmetto State Clean Fuels Coalition collaborated with the National Ethanol Vehicle Coalition (NEVC) and other Clean Cities Coalitions in the development of a U.S. Department of Energy Broad Area Application for the development and promotion of ethanol fueling infrastructure. In September 2002, it was announced that the NEVC would receive $958,000 to establish an E85 infrastructure grant program. The Palmetto State Clean Fuels Coalition worked with representatives from the South Carolina Department of Health and Environmental Control to develop an application for the installation of an E85 fueling station in the upstate area where there is a concentration of state and local government fleet vehicles, many of which are flex fuel vehicles. The proposed facility would be located off the Interstate 85 corridor approximately 145 miles from Atlanta, Georgia and 100 miles from Charlotte, North Carolina. This application is under development for future funding.

V. STAKEHOLDER DESCRIPTION

As discussed in the background section of the program plan, the Palmetto State Clean Fuels Coalition was formed from the merger of two South Carolina Clean Cities efforts following the dissolution of the Centralina/Catawba bi-state partnership in the upstate and the resignation of the Central Midlands coordinator. Stakeholders from the original partnerships, desiring to maintain the momentum of the alternative fuels efforts, immediately moved to reorganize as a joint coalition which was named Palmetto State in honor of the state logo. During the initial phases of the original coalitions, the core planning groups met monthly to develop program guidelines and facilitate stakeholder recruitment. Work groups met on a regular basis to focus on specific tasks such as marketing and program mission development. These initial efforts have been incorporated into the Palmetto State Coalition which allowed the group to build on the earlier foundations established through intense stakeholder participation. The Palmetto State Clean Fuels Coalition is currently working with stakeholders to develop draft bylaws which will establish a meeting schedule of bi-annual stakeholder full Coalition meetings along with working group meetings, and special events (i.e. Advancing the Choice planning). The full Coalition meetings will alternate between Columbia and Rock Hill and other locations within the coalition area in an effort to minimize travel required of members. Since the merger, the full Coalition has met four times with a fifth meeting scheduled for Fall 2003. Various workgroups have met to develop the program plan, stakeholder recruitment materials, infrastructure planning, along with conducting two Advancing the Choice events and jointly hosting a multi-state alternative fuels workshop. See the Timeline of Activities in Section IX, beginning on page 41 for more details of events.

As shown on the organizational chart in Section VIII, various workgroups have been formed by stakeholders to take on the challenge of increasing alternative fuel vehicles and alternative fuels infrastructure development in South Carolina. While the group has five permanent workgroups, including fleets, fuels, education, legislative and funding, the Coalition also establishes special workgroups as needed on projects. One such group was the Program Plan Development workgroup that was representative of a wide variety of interests including state, local and private entities. The workgroup was responsible for the development, editing and distribution of the Coalition program plan. For specific names of workgroup members, please see Section VIII.

The stakeholders have shown the intent to sign the Clean Cities Memorandum of Understanding upon designation through the development of a Letter of Commitment. This letter indicates the stakeholders' willingness to work together for the common interest of promoting the acquisition and use of alternative fuel vehicles throughout the State of South Carolina. Signatories of the Letter will work together in a coordinated effort as the Palmetto State Clean Fuels Coalition. A sample of this Letter of Commitment is included in Appendix A, and a complete list of stakeholders who have signed the Letter of Commitment is included in Appendix B as well as a list of potential stakeholders.

VI. ALTERNATIVE FUEL VEHICLE MARKET SITUATION

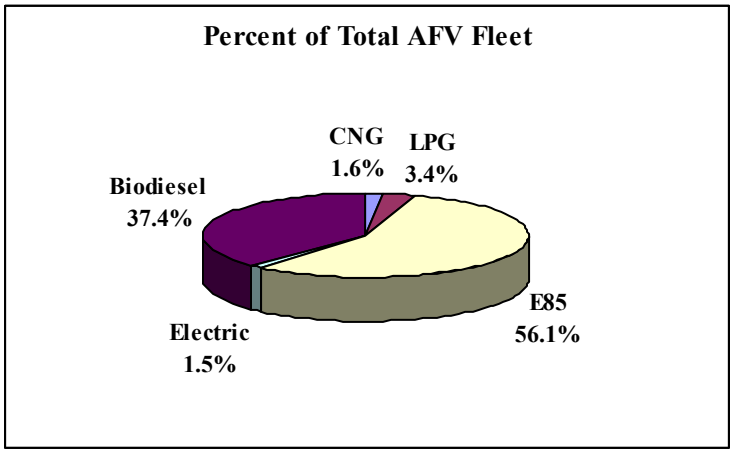
A. AFV Market Fleet Survey

Over the course of the designation process, four separate surveys have been completed of the Palmetto State Clean Fuels Coalition area to determine the number of alternative fuel vehicles in operation. Summaries of these surveys are reviewed in this section. Full data lists from the surveys have been included in Appendix C and a sample survey form is included in Appendix E.

The South Carolina State Budget and Control Board, Office of State Fleet Management, completed a statewide survey of all government vehicles – federal, state, county and city, in the Summer of 2002. PSCFC staff completed an update of this survey for the nine county coalition area in June 2003. The 2003 updated survey also included private fleets operating in the coalition area. The survey was conducted via mail, fax, phone and e-mail in order to obtain the most accurate information possible. More than 250 fleets have been surveyed in the nine-county coalition area including 15 local governments, 7 utilities, 45 transit providers, 4 colleges/universities, 10 delivery fleets, 3 communications companies, fuel distributors and the general services administration which includes military establishments.

In order to assess the true alternative fuel usage in the state, survey totals for current fleet vehicles included in Appendix C include only those vehicles operating on alternative fuels at least 75% of the time. Additional alternative fuel vehicles, such as flexible fuel vehicles not operating on E-85, were not included in current totals but were included in projected AFV numbers also included in Appendix C.

The fleet survey identified a total of 1,232 alternative fuel vehicles operating in the Coalition service area at least 75% of the time on the applicable alternative fuel with 818 (66%) of these vehicles operating on the alternative fuel at least 100% of the time. Of these vehicles, 691 (56.1%) were E-85 flex fuel with 565 of the vehicles (82%) being located in the Aiken area at the Savannah River Site. These 565 vehicles operate 100% of the time on E85 utilizing a fuel card lock system that only permits the dispensing of E85. The survey also identified 461 (37.4%) vehicles operating on B20 biodiesel, 42 (3.4%) operating on propane, 20 (1.62%) operating on compressed natural gas, and 18 (1.5%) electric vehicles. A summary of the information is shown in chart form below.



The PSCFC fleet survey also requested that stakeholders review their previous projections for alternative fuel vehicle purchases. Respondents were asked to review their scheduled vehicle purchases to realistically identify potential sectors of their fleet that would be a good fit for alternative fuels. Survey respondents indicated that over the next five years an additional 2,005 alternative fuel vehicles will be put into operation or will begin using the applicable alternative fuel in the nine county coalition area bringing the total number of AFVs to 3,237. This represents an annual increase of approximately 21.5% or roughly 401 vehicles annually. These projected commitments exceed the National Clean Cities goal of a 17% annual increase.

While the projected numbers may seem high, the PSCFC believes that the numbers are attainable considering that additional alternative fuel infrastructure is under development statewide to support the vehicles, and considering that the largest projected increases include the South Carolina State Fleet and the United States Postal Service (USPS). The USPS currently has 130 flex fuel capable delivery vehicles not operating on E-85 due to a manufacturer problem with the fuel pump. These vehicles have been retrofitted with the appropriate fuel pumps and are now capable of operating on E-85. Discussions are underway to coordinate E-85 infrastructure in the Columbia and Rock Hill areas of the Coalition to be conveniently accessible to both state fleet vehicles and USPS vehicles. Additionally, the USPS anticipates adding more than 200 vehicles to their fleet over the next five years to cover rural route deliveries. The USPS projects acquiring flexible fuel minivans to serve these rural areas.

B. Refueling Station Infrastructure

In the Summer of 2002, the South Carolina Energy Office funded an effort by the State Budget and Control Board, Office of State Fleet Management to identify and locate alternative fuel infrastructure in the state of South Carolina. The Palmetto State Clean Fuels Coalition completed an update of this survey in June 2003. Following is a summary of the data collected. Detailed infrastructure data may be found in Appendix D and a sample survey form is included in Appendix E.

Ethanol (E-85)

Currently, there are three E-85 fueling points located within the PSCFC area. One E-85 site is located in Columbia and is available to state, federal and local government fleets.

This site currently dispenses an average of 5,000 gallons per month for a projected annual total of 60,000 gallons. The Savannah River Site located in Aiken, South Carolina operates two E-85 fueling points on site for SRS fleet use only. This was reported as one fueling point since they are contained on one site. SRS ensures the use of E-85 100% of the time through the use of a key-lock system that only permits access to E-85. SRS currently dispenses an average of 20,000 gallons of E-85 per month. The third E-85 fueling point, shown in the photo at left, is located in

Aiken County at the United Energy Biofueling Facility. The United Energy E-85 site is open to all fleets as well as to the general public. The number of E-85 stations in the Coalition area is expected to increase significantly under the Catawba Region Ethanol Project (see Funding Section, Page 13). Sites are identified in York, Lancaster, Richland and Lexington Counties. It is projected that at least two sites will be open serving the Columbia and Rock Hill areas of the Coalition before the end of 2003 with an additional eight sites open before the end of 2005. United Energy Distributors also has plans to add E-85 at one convenience store location in Aiken making the fuel available 24 hours per day. Additionally, the Palmetto State Clean Fuels Coalition Fuels Working Group is coordinating an effort with South Carolina State Fleet Management to place infrastructure maps and mirror tags in all FFVs in State and Federal Fleets.

Compressed Natural Gas (CNG)

South Carolina Electric and Gas (SCE&G), operates a fastfill CNG station located on Assembly Street in the City of Columbia. At present the site is only available through governmental and/or private contract, not to the general public. A card-reader system is currently being installed at the SCE&G site that will, upon completion, permit the sale of CNG to the general public. In the Catawba Region of the PSCFC, there are four CNG fueling points. None of these sites are open to the general public.

Propane (LPG)

Like many areas of the nation, the most readily available alternative fuel in the PSCFC area is propane. There were sixteen publicly accessible propane sites identified by the study within the nine county coalition boundary and one private for a total of seventeen sites. A number of additional sites are known to be in business, but no responses were received within the timeframe of the study. Most of these LPG sites use a nozzle attachment to fuel directly from delivery vehicles that also operate on propane. This arrangement is commonly used to fuel recreational vehicles. However, there is one publicly accessible card-lock system that is in use in Lancaster County. Schwan's Home Service, Inc., currently has a private propane fueling point for it's 13 medium duty delivery vehicles located in Lexington, South Carolina. South Carolina State Fleet Management is pursuing the development of two propane refueling sites to be located at two South Carolina Department of Transportation (SCDOT) sites in the Columbia area.

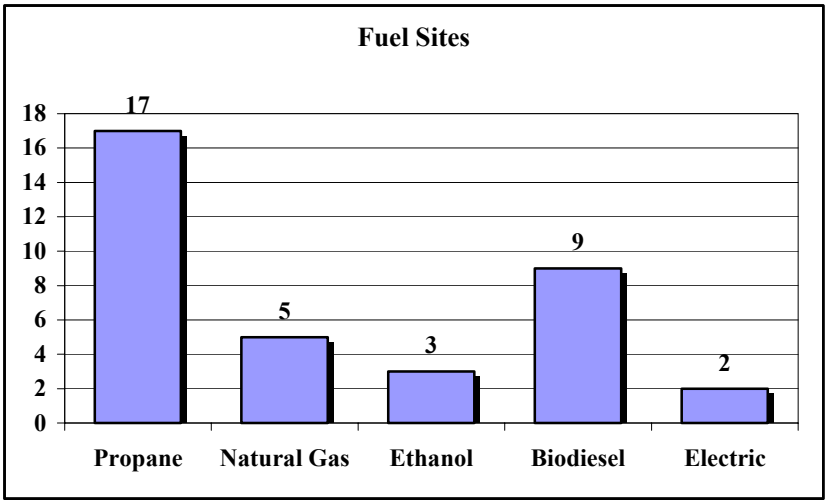
Biodiesel (B20)

Biodiesel use in South Carolina is on the increase largely due to the efforts of two of the Coalition's most active stakeholders—United Energy Distributors, Inc. and South Carolina State Fleet Management. South Carolina State Fleet now has B-20 biodiesel available at 18 South Carolina Department of Transportation sites—six of which are located in the PSCFC area including Aiken, Newberry, Winnsboro, Lexington, and two Columbia area sites. Aiken Electric Cooperative and the University of South Carolina—Columbia maintain biodiesel tanks for use by organization vehicles. B20 is available to the general public at the United Energy site in Aiken and is projected to be located at an additional public site in Aiken by the end of the summer 2003.

Electric

Electricity is not widely used in South Carolina as an alternative fuel largely due to topography. Currently, within the PSCFC area, there are two institutions of higher learning that operate electric vehicles and maintain charging points on campus for their use. York Technical College in Rock Hill maintains 3 dedicated charging points on campus and the University of South Carolina at Columbia maintains 8 dedicated charging points onsite for their GEM cars and Tiger Electric Trucks.

A summary chart of the existing infrastructure is shown below.



VII. GOALS AND OBJECTIVES

The National Clean Cities program assists communities in implementing the goals set forth by the federal government with regards to utilization of alternative fuels. The foundation of the Clean Cities mission rests on five pillars:

1. Displace conventional transportation fuels with domestically-produced, clean-burning alternative fuels
2. Increase the number of alternative fuel vehicles
3. Develop alternative refueling infrastructure, vehicle conversion, maintenance and related service industries
4. Advance public understanding of the benefits of using alternative fuels
5. Develop Clean Cities Corridors between Clean Cities, interstate highways and trade routes

The Palmetto State Clean Fuels Coalition seeks to improve the quality of life of state residents by decreasing air pollution and the economic instability associated with dependence on foreign fuels, by increasing the alternative fuel vehicle marketplace and the supporting infrastructure. As a first step in this process, the coalition seeks to be recognized as a Clean Cities Coalition. In addition to achieving the Clean Cities designation, the Palmetto State Clean Fuels Coalition has the following objectives:

1. Increase the number of alternative fuel vehicles on the road
2. Improve and increase the availability of alternative fuels and vehicles
3. Promote incentives to increase the use of alternative fuels
4. Improve monitoring systems for the use of alternative fuels and vehicles
5. Improve Clean Cities communication network
6. New stakeholder recruitment

Stakeholders have identified barriers to program success such as the high cost of fuels, lack of infrastructure, reliability of technology, inadequate funding and lack of public education. These barriers will be addressed in regards to meeting coalition goals by the following:

GOAL A: INCREASE THE NUMBER OF ALTERNATIVE FUEL VEHICLES ON THE ROAD IN THE PALMETTO STATE CLEAN FUELS COALITION AREA BY AT LEAST 17% ANNUALLY.

ACTION STEPS:

Palmetto State Clean Fuels Coalition (PSCFC) staff completed a revised fleet survey of federal, state, local government and private fleets in June 2003. Respondents were asked to review scheduled vehicle purchases to realistically identify potential sectors of their fleet that would be a good fit for alternative fuels and identify existing AFVs not currently operating on alternative fuels. Survey respondents projected that over the next five years,

an additional 2,005 AFVs will be acquired or will begin using the applicable alternative fuel representing an annual increase of nearly 21.5% and a total increase of 162% over the five-year period.

PSCFC staff and the Fleets Workgroup have coordinated numerous outreach activities focused on increasing the number of AFVs on the road. These activities have included 5 Advancing the Choice Events, coordination of demonstration vehicles for fleet tests, coordination of one-on-one meetings between fleet managers and OEMs and fuel providers and presentations to statewide fleet manager groups such as the SC Government Fleet Managers Association, National Association of Fleet Administrators, and the Transportation Association of South Carolina.

1) Work with Stakeholders to obtain AFV purchase and fuel use commitments estimated at nearly 21.5% or roughly 401 vehicles annually.

    - Fall 2003 – Work with Stakeholder SC State Fleet Management to expand E85 usage in its 375 FFVs. **Fleets and Fuels Workgroups and Coordinators**

    - Fall 2003 – Work with Stakeholder SC State Fleet Management to expand usage of B-20 Biodiesel in 800 vehicles.

    - Summer 2003 – Assist Stakeholder University of South Carolina with completion of conversion of its system of 28 buses to B20. **Fleets and Fuels Workgroups and Coordinators**

        a) Prepare outside funding proposal to foundations and agencies on behalf of the University of South Carolina to cover the incremental cost for the purchase and/or retrofit of the university bus system from diesel to B-20. **Fuels Workgroups and Coordinators**

    - Summer 2003 – Continue work with Stakeholder City of Tega Cay to introduce electric vehicles at the golf course and City maintenance fleet.

    - Fall 2003 – Work with Stakeholder Central Midlands Regional Transit Authority to convert 6 diesel trolleys and 41 clean diesel buses to B-20 biodiesel. **Fleets and Fuels Workgroups and Coordinators**

    - Fall 2003 – Work with Stakeholder USPS to begin using E-85 in existing 180 alternative fuel delivery vehicles. **Fuels Workgroups and Coordinators**

    - Fall 2003 – Work with Savannah River Site Fleet Manager to address concerns and to reintroduce B-20 biodiesel in 96 vehicles onsite. **Fleets and Fuels Workgroups and Coordinators**

- Fall 2003 – Work with the State Department of Education and the State Budget and Control board to arrange a pilot test of B-20 biodiesel in a Coalition district. **Fuels Workgroups and Coordinators**

    a) Prepare funding proposal to the State Energy Office to cover the incremental cost of B-20 biodiesel.

- Fall 2003 – Begin work with the City of Lancaster and Lancaster County, Stakeholders in the Coalition, to acquire 25 light-duty propane vehicles for their public safety fleets. These 25 vehicles will be added over the next five years. **Fleets and Fuels Workgroups and Coordinators**

    a) Prepare outside funding proposal(s) to foundations and agencies on behalf of the City of Lancaster and Lancaster County to cover the incremental cost for the purchase of propane vehicles. **Fuels Workgroups and Coordinators**

- Fall 2003 – Assist the City of Rock Hill, a Stakeholder in the Coalition, in the acquisition of 3 heavy-duty CNG refuse collection trucks to increase their fleet to 6 heavy-duty CNG refuse collection trucks. **Fleets Workgroup and Coordinators**

    a) Prepare outside funding proposal(s) to foundations and agencies on behalf of the City of Rock Hill to cover the incremental cost for the purchase of the 3 CNG vehicles.

- Fall 2003 – Assist United Energy Distributors and the Lower Savannah Council of Governments, Stakeholders in the PSCFC, with the introduction of B-20 Biodiesel at the Three Rivers Landfill in Aiken County. **Fuels Workgroup and Coordinators**

- Spring 2004 – Assist Stakeholder USPS in selection of appropriate FFVs for rural route deliveries. The USPS is currently considering flexible fuel minivans. **Fleets and Fuels Workgroups**

2) Work with fuel suppliers and utilities throughout the PSCFC area to start or expand the use of alternative fuels in their fleets.

- Summer 2003 – Continue efforts to include South Carolina Electric and Gas (SCE&G) as stakeholder in PSCFC.

- Fall 2003 – Meet with Stakeholder Duke Energy to discuss expansion of alternative fuel use from their North Carolina sites into South Carolina including 19 FFVs and 25 Biodiesel vehicles at Catawba Nuclear Site. The meeting will be coordinated with the Centralina Clean Fuels Coalition in North Carolina. **Fleets and Fuels Workgroup and Coordinators**

- Fall 2003 – Work with Stakeholder Palmetto Propane and other propane dealers throughout the PSCFC area to increase the use of propane vehicles.

- Winter 2004 – Work with Stakeholder York County Natural Gas Authority to investigate possibility of inclusion of CNG vehicle requirements in contracts for gas-line installations. **Fuels Workgroup and Coordinators**

- Winter 2004 – Work with Comporium Communications to investigate the introduction of alternative fuels in their communications and cable fleet.

- Winter 2004 – Coordinate with Aiken Electric Cooperative to expand the use of B-20 biodiesel and introduce E-85 in at least 10 vehicles.

- Continue to make demonstration vehicles available for fleet application tests. **Fleets Workgroup and Coordinators**

3) Monitor the development of Alternative Fuel Vehicle Technology

- Ensure that the most current technology is available on state purchase contract. **Fleets Workgroup and Coordinators**

- Continue to make demonstration vehicles available for fleet application tests. **Fleets Workgroup and Coordinators**

- Continue to evaluate new technologies and provide information to stakeholders through newsletter, coalition website and an e-mail list serve. **Fleets Workgroup and Coordinators**

- Continue to explore funding opportunities for demonstration projects of new technologies, in conjunction with the State Energy Office. **Funding Workgroup and Coordinators**

GOAL B: INCREASE THE NUMBER OF ALTERNATIVE REFUELING/RECHARGING STATIONS TO SUPPORT AFV GROWTH IN THE PALMETTO STATE CLEAN FUELS COALITION AREA.

ACTION STEPS:

Palmetto State Clean Fuels Coalition staff completed a revised alternative fuel infrastructure survey in June 2003. Respondents were asked to provide information on the existing and proposed alternative fueling infrastructure over a five-year period. Information collected included infrastructure type, location, hours of operation and whether the site is private or public access.

The Palmetto State Clean Fuels Coalition in cooperation with the South Carolina Energy Office and other stakeholders has worked over the years to acquire funding for alternative fuel infrastructure including $400,000 for a fast-fill CNG station in Columbia that will soon be a public access site, $35,000 for an E-85 station in Columbia, and is utilizing $440,000 from an Environmental Protection Agency Supplemental Environmental Project (SEP) to develop publicly accessible E-85 infrastructure in the PSCFC area. Staff has worked over the past two years to build a base for this project in order to ensure its success. Staff has worked with the SC Petroleum Marketers Association and the National Ethanol Vehicle Coalition to distribute information on the available funds. Currently, cost estimates are being prepared for the construction of 2 publicly accessible E-85 sites in Columbia and the Rock Hill area. These sites are projected to be complete by Winter 2003 and an additional 8 publicly accessible sites are projected to be developed with the SEP funds by 2005.

PSCFC staff and stakeholders have worked to draft and promote legislation favorable to alternative fuels. Staff also prepared an application to the State Energy Office to establish a fuel rebate program in the amount of $50,000.

1) Work with Stakeholders to expand the development of publicly accessible alternative fuel infrastructure in the PSCFC

    - Continue development of partnerships for the creation of new publicly accessible refueling stations including partnerships with Stakeholders PERC, Palmetto Propane, Brandi Petroleum, Culp Petroleum, and United Energy Distributors. **Coordinators and Fuels Workgroup**

    - Utilize the $440,000 Supplemental Environmental Project funding to develop ethanol refueling stations available to the public within the PSCFC area. **Coodinators**

        a) Stakeholder Brandi Petroleum is currently acquiring cost estimates for development of E-85 infrastructure at 5 Columbia area Pitt Stop Convenience stores that will serve SC State Fleet vehicles as well as the USPS vehicles.

            (1) Select 2 most viable sites based on proximity to major travel corridors and FFV concentrations and begin installation of infrastructure by end of 2003.

        b) Stakeholder Culp Petroleum is currently acquiring cost estimates for development of E-85, B-20 and LPG infrastructure at locations in York and Lancaster Counties to serve SC State Fleet vehicles, USPS, and local government fleets.

(1) Select most viable sites based on proximity to major interstate corridors and FFV concentrations and begin installation of infrastructure by end of 2003.

c) Identify sites for at least 8 publicly accessible E-85 sites by 2005.

- Summer 2003 – Continue to advertise the availability of funds for E-85 infrastructure through trade publications and exhibits attended by petroleum suppliers in South Carolina. Coordi**nators and Fuels Workgroup**

    a) Presentation in July 2003 on alternative fuels and available funding to SC Petroleum Marketers Association Annual meeting.

- Continue to support efforts to locate a biofuels refinery in Estill, South Carolina. **Coordinators and Fuels Workgroup**

    a) The SC Energy Office, a Stakeholder in the Coalition, secured funding in Fall 2002 to conduct a Feasibility and Marketing Study. The study will be compete Summer 2003 and will provide information that will assist the State and the PSCFC in market development. **Coordinators and Fuels Workgroup**

- Summer 2003 – Support efforts of United Energy Distributors to develop a biofuels storage facility in Aiken SC. UED estimates end-user cost savings of .10 cents per gallon for customers in Georgia and South Carolina. **Coordinators and Fuels Workgroup**

    a) Seek funding to support development of facility. **Coordinators and Fuels Workgroup**

- Fall 2003 – Continue work with Propane Education Resource Council to develop publicly accessible propane infrastructure. **Coordinators and Fuels Workgroup**

- Support the development of electric vehicle recharging stations with focus on universities and public and private grounds maintenance and security. **Fuels Workgroup**

    a) Assist the City of Tega Cay in the identification and acquisition of appropriate electric vehicles for the golf course community. **Coordinators and Fleets Workgroup**

GOAL C: RECRUIT NEW STAKEHODLERS REPRESENTATIVE OF STATE, FEDERAL, AND LOCAL GOVERNMENTS AND PRIVATE INDUSTRY.

The PSCFC has undertaken numerous stakeholder recruitment activities including hosting 5 Advancing the Choice Events, speaking to local organizations such as Chambers of Commerce, Rotary, special interest group meetings, presentations at statewide meetings such as the SC Government Fleet Managers Association (SCGFMA) meeting in 2002, Transportation Association of South Carolina in Spring 2003.

ACE events have been coordinated with other groups including the National Association of Fleet Administrators in Fall 2000, SCGFMA, and the National Alternative Fuels Training Consortium. Events have been widely covered in the media including broadcast and print.

PSCFC staff and stakeholders recently updated the fleet survey and used this data to develop a 'wish-list' of government and private industry fleets that will be targeted for outreach in 2003-2004.

ACTION STEPS:

1) Utilize available resources to identify fleets meeting size requirements to fall under the Energy Policy Act of 1992 and encourage these organizations to become stakeholders in the Palmetto State Clean Fuels Coalition.

   - Summer 2003 – Continue efforts to include Federal Fleets such as Fort Jackson and Savannah River Site as official members of the Coalition. **Coordinators and Fleets Workgroup**

   - Utilize available resources to identify private fleets and encourage these organizations to become stakeholders in the Palmetto State Clean Fuels Coalition. **Coordinators and Fleets Workgroup**

   - Summer 2003 – Use recently updated local government and private industry fleet survey. Use the results to determine a "wish list" of local government and private industry stakeholders. **Coordinators and Fleets Workgroup**

   - Continue work with Schwan's to become official member of Palmetto State Clean Fuels Coalition. **Coordinators and Fleets Workgroup**

   - Identify contacts with local delivery fleets such as Krispy Kreme, Harris Teeter to become members of the Coalition and begin using alternative fuels. **Coordinators and Fleets Workgroup**

- Continue work with local communication and cable providers such as Comporium Communications to become official stakeholders in the Coalition and begin using alternative fuels. **Coordinators and Fleets Workgroup**

- Work with Energy Resource Center to target environmental steward program at Black and Decker **Coordinators and Fleets Workgroup**

- Work with Energy Resource Center to target John Deere Research Center for participation in PSCFC. **Coordinators and Fleets Workgroup**

- Make contact with United Food Service to investigate potential for alternative fuel use. **Coordinators and Fleets Workgroup**

- Spring 2003 – Begin recruitment of members from niche markets in the coalition area by providing access for members to fuel providers, certified conversion mechanics, and original equipment manufacturers. **Coordinators**

    a) Target Columbia Metropolitan Airport to include ground service vehicles as well as on-site vendors. **Coordinators and Fleets Workgoup.**

    b) Target *Stacy's Garden Center* for distributing information to transport contractors for live plant deliveries to Lowe's and Home Depot.

GOAL D: PROMOTE INCENTIVES TO INCREASE THE USE OF ALTERNATIVE FUELS IN THE PALMETTO STATE CLEAN FUELS COALITION AREA.

ACTION STEPS:

In Fall 2000 the PSCFC and Stakeholders worked with the SC Department of Transportation to develop AFV legislation to waive the state portion of the gas tax on alternative fuels. The Coalition worked in Spring 2001 to identify a sponsor for the legislation. House Bill 5130 was introduced on April 11, 2001 in the House and its companion bill was introduced in the Senate. After introduction, the legislation was referred to the House Ways and Means and Senate Finance Committees. Issues with the State Budget prevented passage of the legislation during that session. Coalition staff and Stakeholders are working to prefile the legislation in Fall 2003.

- Winter 2003 – Develop a fact sheet for stakeholders or persons interested in alternative fuels that will:

a) Provide information to stakeholders on qualified conversion mechanics. **Education Workgroup**

b) Provide information to vehicle users on locations of refueling stations. **Education Workgroup**

- Develop grant applications for materials necessary to promote and expand the use of alternative fuels in South Carolina (example: Biodiesel Promotion and Education Project). **Coordinators**

- Prepare outreach materials for School Districts and Drivers on the safe use of Biodiesel in existing school buses. **Education Workgroup and Coordinators**

- Expand EPAct Fleet usage of alternative fuels from "as needed" to meet federal emissions credits to alternative fuels at all time. **Fuels Workgroup and Coordinators**

GOAL E: COMMUNICATE CLEAN CITIES MESSAGES TO THE PUBLIC TO INCREASE THE USE OF ALTERNATIVE FUELS IN THE PALMETTO STATE CLEAN FUELS COALITION AREA.

ACTION STEPS:

The PSCFC has worked with Stakeholder South Carolina Energy Office to host their website. It is housed at www.state.sc.us/energy/cleancities.htm. The SCEO webmaster keeps the site up-to-date with the most recent information including stakeholder meeting minutes, Program Plan submittal updates, coalition newsletters, and contact information. Future improvements to the web will include infrastructure maps and information for fleet managers.

In keeping with the effort to keep our stakeholders informed of events in our state, the PSCFC launched a bi-monthly newsletter in December 2002. Three editions have been distributed since then via email and the Internet.

In addition, the PSCFC maintains a library of alternative fuels information including industry newsletters, OEM product information, and fuels information. These materials are available upon request. The PSCFC also has databases containing all its stakeholder information.

The PSCFC recognizes that to be successful, alternative fuels efforts must be coordinated on a regional basis. Both the coordinators and several stakeholders including the South Carolina Energy Office, DHEC's Bureau of Air Quality, and PERC serve on the Southeast Regional Alternative Fuels Task Force. The coordinators and stakeholders were

instrumental is assisting with the alternative fuels workshop held in Asheville in December 2002, and are working to help develop the second workshop as well. This group is also assisting in the effort to catalogue alternative fuel use and coordinate policy issues on a regional level.

1) Improve PSCFC communications network.

- House and develop clearinghouse of information on alternative fuels, available to stakeholders and interested parties through mailings and/or electronic versions

    a) Fall 2003 – Utilize Geographic Information Systems (GIS) to map the location of identified alternative fuel sites and make the map downloadable to desktop computers and printers. This information would then be included with the new website**. Coordinators**

    b) Continue to maintain and update create mailing lists and list serves for stakeholders and interested parties to exchange alternative fuels information. The list serves will be expanded as more stakeholders join or as individuals express interest in alternative fuels. **Coordinators**

    c) Continue to maintain and update PSCFC website to include coalition data and update technology information. Currently, the SC State Energy Office hosts the PSCFC website. It can be viewed at **www.state.sc.us/energy/ cleancities.htm.**

- Continue to work to coordinate the Department of Energy regional meeting with Southern Air Principles workshops. **Coordinators and Steering Committee**

- Fall 2003 – Continue working with other coalitions in the Southeast to consolidate issues of concern, with the goal of providing consistent information and resources to policy makers in the Southeast region. **Coordinators and Steering Committee**

- Fall 2003 – Update existing recruitment brochures to interest potential stakeholders. **Coordinators and Education Workgroup**

- Continue to participate in environmental and energy events within South Carolina to distribute information on alternative fuels, alternative fuel vehicles, and the coalition. **Coordinators and Steering Committee**

- Educate local government and private fleet mangers on the requirements of the Energy Policy Act of 1992

- Fall 2003 – Host an Advancing the Choice Event that targets niche markets including mass transit, delivery vehicles, and similar vehicles that are owned by local governments or private fleets. **Fleets and Steering Workgroups**

- Host yearly Advancing the Choice Events with topics to be determined depending on the need and target audience. **Fleets and Steering Workgroups**

2) Increase training related to the availability of Alternative Fuels

   - Winter 2003 – Begin to develop informational and educational materials for use at public meetings of organizations such as civic groups, local government training conducted through university organizations such as the Center of Governance, and educational venues such as parent teacher associations and school outreach programs. **Education Workgroup**

3) Develop marketing related to availability of Alternative Fuels

   - Fall 2003 – Begin working with interested Stakeholders to develop a Communications Plan. The purpose of the plan will be to provide information and talking points to enable current stakeholders to participate in coalition marketing. **Coordinators and Education Workgroup**

   - Continue to distribute an electronic newsletter to keep stakeholders and interested parties informed of new technologies and available equipment. **Education Workgroup**

   - At the Fall 2003 Advancing the Choice Event, allow stakeholders and interested parties to meet with regulatory agencies and fuel providers. **Coordinators**

   - Fall 2003 – Create stickers to identify vehicles as stakeholder members of the Palmetto State Clean Fuels Coalition. **Education Workgroup**

   - Utilize the Supplemental Environmental Project funds available for Community Improvement to market the availability and advantages to E-85 usage throughout South Carolina. **Coordinators**

   - Hold biannual full coalition meetings of the stakeholders to allow development of materials and implementation of program plan objectives. Workgroups will meet on an as needed basis. **Coordinators**

GOAL F: RAISE FUNDS TO ENSURE THAT THE PALMETTO STATE CLEAN FUELS COALTION BECOMES SELF-SUSTAINING WITHIN FIVE YEARS.

ACTION STEPS:

PSCFC staff and Stakeholders are eager to find ways to make the Coalition self-sustaining in coming years. Funding for most of the Coalition's efforts has come through the South Carolina Energy Office, although funding was received for an ethanol project through the Department of Health and Environmental Control. Funding for the ethanol project will provide monies for marketing of alternative fuels and coordination of the Palmetto State Clean Fuels Coalition through 2005.

PSCFC staff and Stakeholders are always looking for funding opportunities. Staff worked with three stakeholders to develop Department of Energy Special Projects proposals this year, but were unable to apply because the Coalition was not approved for designation. Shrinking state budgets and increased competition for federal funding require that Coalitions look inward for money, which this Coalition will do as it drafts new bylaws.

1) Work with the SCEO and Stakeholders to identify potential funding sources and assist stakeholders in preparing applications.

   - Conduct web searches to identify potential resources. **Coordinators**

   - Work with SCEO and other organizations to coordinate PSCFC activities with like projects such as transportation planning and environmental projects. **Coordinators and Funding Workgroup**

   - Work with stakeholders to develop joint applications for shared infrastructure in an effort to leverage funds. **Coordinators, Fuels Workgroup and Fleets Workgroup**

   - Adopt Bylaws outlining dues structure. **Coordinators and Education Workgroup**

   - Solicit donations from private sector fleets such as Duke Energy, SCE&G, Schwan's. **Coordinators, Funding Workgroups and Fleets Workgroup**

   - Target Foundations such as the Turner Foundation, Close Foundation and other environmentally conscious groups. **Coordinators and Funding Workgroup**

   - Work with Metropolitan Planning Organizations (MPOs) in PSCFC area to identify projects that may qualify for CMAQ grants. **Coordinators and Funding Workgroup**

- Obtain cost-share commitments from stakeholders to make potential proposals stronger. **Coordinators, Fleets Workgroup and Funding Workgroup**

- Coordinate project development with other applications where appropriate for a multi-faceted proposal. **Coordinators and Funding Workgroup**

- Contact local businesses and industries to sponsor coalition events and activities such as ACE and printing costs associated with marketing materials. **Coordinators, Education Workgroup and Funding Workgroup**

GOAL G: EDUCATE POLICY MAKERS ABOUT THE BENEFITS OF AFVS AND THE CLEAN CITIES PROGRAM.

ACTION STEPS:

In Fall 2000 the PSCFC and Stakeholders worked with the SC Department of Transportation to develop AFV legislation to waive the state portion of the gas tax on alternative fuels. The Coalition worked in Spring 2001 to identify a sponsor for the legislation. House Bill 5130 was introduced on April 11, 2001 in the House and its companion bill was introduced in the Senate. After introduction, the legislation was referred to the House Ways and Means and Senate Finance Committees. Issues with the State Budget prevented passage of the legislation during that session. Coalition staff and Stakeholders are working to prefile the legislation in Fall 2003.

The process of finding a sponsor and lining up support exposed many policymakers and legislators to alternative fuel issues. Contacts were made at the Governor's Office, the Department of Transportation, the Department of Agriculture, and with individual legislators.

1) Actively seek ways to increase alternative fuel vehicles through incentive programs and legislation. Summer 2003

   - Work with the State Energy Office to line up support for HB5103 and the companion Senate bill. Work will include canvassing stakeholders for comments and/or suggested new draft language, ascertaining sources of dissent with the bill and individual outreach among bill opponents. **Legislative Workgroup**
   - Fall 2003 – Work with the South Carolina Soybean Board to pre-file both pieces of legislation. **Legislative Workgroup**

   - Fall 2003 – Update legislative fact sheets regarding both House and Senate bills. The information should be in an easy-to-follow format and would be passed out to government agencies and potential lobbyists to ensure consistent and accurate information is being disseminated to stakeholders. **Legislative Workgroup**

- Summer 2003 – Work with interested lobbyists to get legislative support for both the House and Senate bills. **Legislative Workgroup**

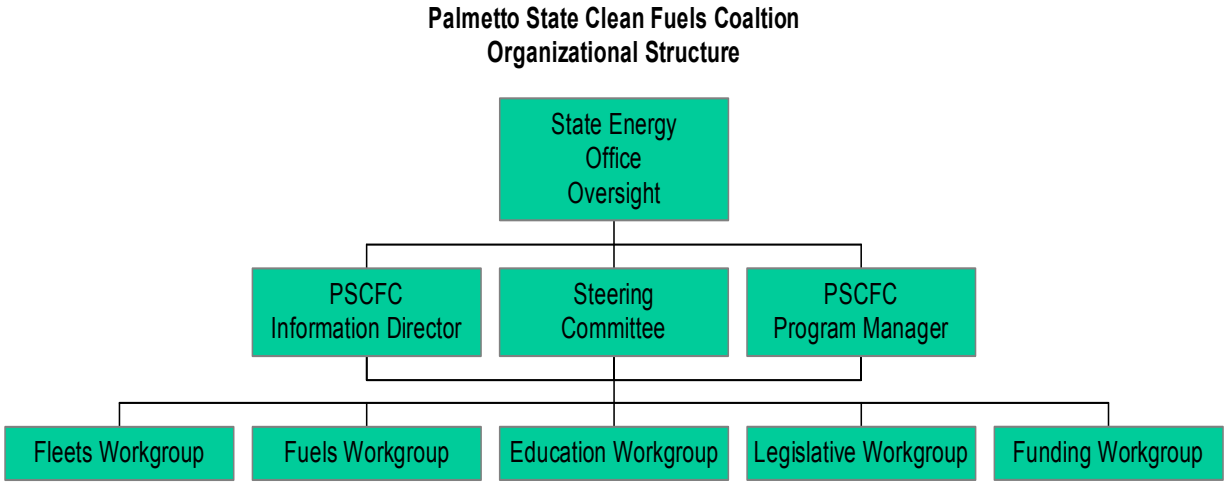
- Fall 2003 – Work with National Clean Cities Inc. and other participating organizations to establish support for federal legislation favoring tax credits and incentives for alternative fuels. **Legislative Workgroup and Coordinators**

VIII. MONITORING AND REPORTING SYSTEM

To manage the effectiveness of the Palmetto State Clean Fuels Coalition, the following monitoring and reporting system has been established. The coalition will:

- Develop a yearly work plan to accomplish the goals set forth in the program plan
- Maintain a log of the coalition activities to be presented at stakeholder meetings and displayed on the website
- Conduct an informal evaluation of the program plan implementation every six months and present results to the stakeholders
- Prepare annual reports, including a formal evaluation of the program plan implementation and make said report available to stakeholders and interested parties
- Request and evaluate comments from stakeholders, interested parties and the regional Department of Energy on the program progress
- Revise the goals and the associated objectives as needed
- Provide coalition status reports to the Department of Energy as requested
- Conduct an annual update of alternative fuel refueling stations
- Conduct an annual update of the alternative fuel fleet survey, with stakeholders requested to make updates to purchasing records quarterly during meetings

IX. ORGANIZATIONAL STRUCTURE



The Palmetto State Clean Fuels Coalition currently operates under the auspices of the South Carolina State Energy Office with coordinator duties handled through contractual agreements with Catawba Regional Council of Governments (CRCOG) and The University of South Carolina Industrial Ecology Program (IEP). Coalition decisions are guided by a Core Planning Group that is representative of key stakeholders. This Core Planning Group will continue to serve in this capacity until the completion of Bylaws that outline the formal composition of the Steering Committee. The Education Workgroup is drafting Bylaws that will be presented at the next full stakeholder meeting in Fall 2003. The PSCFC currently utilizes the 501(c)(3) status of the Catawba Regional COG. This non-profit status permits the PSCFC to undertake fundraising activities and solicitation of monies from various foundations and grant programs. The above chart outlines the organizational structure of the PSCFC.

In order to foster the development of the PSCFC, five work groups were established and assigned the following responsibilities:

Fleets Workgroup: The Fleets Workgroup focuses on increasing the number of alternative fuel vehicles purchased in South Carolina. This includes review and oversight of the fleet survey. The Fleets Workgroup coordinates with the Education Workgroup to inform fleet managers for federal, state, municipal and private fleets on the availability and quality of alternative fuel vehicles.

Fuels Workgroup: The Fuels Workgroup works to increase the infrastructure for alternative fuels in South Carolina. The workgroup continues to explore new ways to provide access to alternative fuels to public and private fleets, as well as the development of infrastructure for service to privately owned vehicles.

Education Workgroup: The Education Workgroup markets and develops educational plans and materials on alternative fuels and alternative fuel vehicles. This workgroup also takes the lead in training and stakeholder recruitment.

Legislative Workgroup: The Legislative Workgroup assists the State Energy Office in lobbying for alternative fuels incentives.

Funding Workgroup: The Funding Workgroup explores, in conjunction with the Clean Cities Coordinators, various means of funding available to increase the purchase and conversion of vehicles and the development of refueling stations. This includes grant writing and technology review.

Special workgroups may function for short-term periods based on a specific task

A. Coalition Coordination

The PSCFC coordinator duties are split 50% time between Wendy Bell at the Catawba Regional Council of Governments and LeAnn Herren at the University of South Carolina Industrial Ecology Program. Wendy is Senior Planner at the CRCOG where her responsibilities include transportation Planning and environmental programs. LeAnn is Director of the IEP where her responsibilities include industrial environmental assistance and the South Carolina Industries of the Future. Within the Coalition, LeAnn is responsible for information and outreach while Wendy is responsible for program management and coalition development. Contact information follows:

Wendy Bell
Program Manager
Senior Planner
Catawba Regional COG
PO Box 450
Rock Hill, SC 29731
(803) 327-9041
(803) 327-1912 (fax)
wbell@catawbacog.org

LeAnn Herren
Information Director
Director
USC
School of the Environment
Columbia, SC 29208
(803) 777-9061
(803) 777-0536
herren@environ.sc.edu

B. Core Planning Group

The Core Planning Group is comprised of key stakeholders representative of public and private interests. Members of this group have been active in the Clean Cities efforts in South Carolina for many years. The Core Planning Group has been instrumental in the development of the PSCFC. This group works closely with the program coordinators providing technical support and programmatic direction. Coordinators currently serve as co-chairs of the steering committee until adoption of bylaws when officer elections are held. The Core Planning Group members are:

Patricia Tangney
Program Manager
South Carolina Energy Office
1201 Main Street, Suite 1010
Columbia, SC 29201
803-737-8036
803-737-9846 (fax)
ptangney@ogs.state.sc.us

Jeff McCormack
Program Manager
South Carolina State Fleet Management
1022 Senate Street
Columbia, SC 29201
803-737-1504
803-737-1160 (fax)
jmccormack@ogs.state.sc.us

Jan Smoak
SCDHEC
Director, Division of Support Services
2600 Bull Street
Columbia, SC 29201
803-898-3514
803-898-3470
smoakjm@dhec.sc.gov

Henry Phillips
SCDHEC
Division of Air Quality
2600 Bull Street
Columbia, SC 29201
803-898-3260
803-898-4117
phillimh@dhec.sc.gov

Dr. Robert Kosak
Director
Energy Resource Center
452 South Anderson Rd
Rock Hill, SC 29730
803-325-2865
803-325-2864
kosak@yorktech.com

Tonya Lott
SCDHEC
Division of Air Quality
2600 Bull Street
Columbia, SC 29201
803-898-4291
803-898-4487
lotttm@dhec.sc.gov

Margaret Owens
Director
SC Soybean Board & TPPG
1441 Main St, Suite 1000
Columbia, SC 29201
803-540-2020 ext3038
803-540-2001
mowens@tppg.com

James “Red” Roberts
President
United Energy Distributors
PO Box 6987
Aiken South Carolina
888-207-2009
803-642-0115
jrob795669@aol.com

C. Workgroup Membership

Fleets Workgroup:

Jan Smoak, DHEC Motor Vehicles
Tonya Lott, DHEC Air Quality
Marty Burr, City of Rock Hill
Jeff McCormack, State Fleet Management
Laurie Bell, DHEC Air Quality

Fuels Workgroup:

Jan Smoak, DHEC Motor Vehicles
Jeff McCormack, State Fleet Management
Tonya Lott, DHEC Air Quality
Marty Burr, City of Rock Hill
Red Roberts, United Energy Distributors
Ed White, PERC
Trish Jerman, Sustainable Universities
Bob Burgess, DHEC Waste Minimization
Laurie Bell, DHEC Air Quality
Tim Shawver, Duke Energy
Steve Clark, York County Natural Gas

Education Workgroup:

Bob Kosak, York Technical College
Tim Shawver, Duke Energy
Tom Falvey, SC State Museum
Michael Monroe, DHEC Air Quality
Margaret Owens, SC Soybean Board

Legislative Workgroup:

Jeff McCormack, State Fleet Management
Tonya Lott, DHEC Air Quality
Margaret Owens, SC Soybean Board
Henry Phillips, DHEC Air Quality
Red Roberts, United Energy Distributors

Funding Workgroup:

Bob Kosak, York Technical College
Henry Phillips, DHEC Air Quality
Derrick Huggins, USC Motor Vehicles
Laurie Bell, DHEC Air Quality

Program Plan Development (Special Workgroup):

The Program Plan Development Workgroup is a temporary workgroup established to assist in the development of the program plan.

Patricia Tangney, State Energy Office
Tonya Lott, DHEC Air Quality
Jeff McCormack, State Fleet Management
Jan Smoak, DHEC Motor Vehicles
Bob Kosak, York Technical College
Chris Howard, USC Motor Vehicles

X. TIMETABLE OF ACTIVITIES

Summer 1998	Central Midlands Clean Cities program established
Winter 1999	Central Midlands Clean Cities Coordinator hired Centralina/Catawba Clean Fuels Coalition program established
Spring 1999	Central Midlands Clean Cities Stakeholder Group established Centralina/Catawba Clean Fuels Coalition Stakeholder Group established
Summer 1999	Central Midlands Clean Cities Planning Committee established Centralina/Catawba Clean Fuels Coalition Fleet survey initiated
Fall 1999	Central Midlands Clean Cities Draft Program Plan outline developed Centralina/Catawba Clean Fuels Coalition Draft Program Plan Completed and submitted to U.S. DOE Headquarters
Fall 2000	Advancing the Choice Event, York Technical College, Rock Hill
Fall 2000	Ethanol Workshop held in Columbia with BBI-Ethanol
Fall 2000	Clean Cities Presentation and Booth at the South Carolina Government Fleet Managers Association Annual Meeting
Fall 2000	Legislative workshop held with stakeholders in Columbia to begin work on draft legislation
Winter 2001	Coordinated Ride and Drive and Alternative Fuel Vehicle Display at National Air Quality Conference in Charlotte, North Carolina
Winter 2001	Coordinated meeting with National Ethanol Vehicle Coalition and state fleet management and General Services Administration in Columbia
Spring 2001	Advancing the Choice Event, SC State Museum, Columbia
Fall 2001	United Energy Distributors opens public alternative fuels refueling station in Aiken
Fall 2001	Central Midlands Clean Cities stakeholder vote to disband
Fall 2001	Centralina/Catawba Clean Fuels stakeholders vote to disband two state effort due to difficulties of long-term two state project
Winter 2002	Clean Cities coordinator hired to begin new coalition
Winter 2002	Palmetto State Clean Fuels Coalition established by former Clean

	Cities stakeholders of Catawba and Central Midlands along with new interested parties
Spring 2002	South Carolina Department of Health and Environmental Control opens E-85 refueling station in Columbia
Spring 2002	House Bill 5103 and Senate Bill 1216 introduced to the South Carolina General Assembly to encourage alternative fuels usage
Spring 2002	Palmetto State Clean Fuels Coalition Stakeholder Group established
Spring 2002	Palmetto State Clean Fuels Coalition draft program plan completed
Spring 2002	AFV Odyssey Day, York Technical College, Rock Hill
Spring 2002	Ethanol Display at the Southeast Petro-Food Marketing Exposition, Charlotte Convention Center
Spring 2002	Host Educational meeting with Department of Defense installations regarding alternative fuels. guest speaker from Fort Knox Army Depot.
Fall 2002	University of South Carolina converts shuttle system to biodiesel
Fall 2002	Fuel Efficiency Exhibition held at the University of South Carolina, hosted by the SC Interfaith Climate Change Campaign
Fall 2002	Palmetto State Clean Fuels Coalition sponsor multi-state alternative fuels workshop "Building Alternative Fuel Network in the Southeast" in Ashville, NC.
Fall 2002	Biodiesel and Ethanol Display at the South Carolina State Fair, Columbia
Fall 2002	Palmetto State Clean Fuels Coalition website launched
Fall 2002	Full Stakeholder meeting hosted by the South Carolina Farm Bureau
Fall 2002	First Palmetto State Clean Fuels Coalition Newsletter published
Winter 2003	Second Palmetto State Clean Fuels Coalition Newsletter published
Spring 2003	Coordinated Alternative Fuel vehicle and information exhibit at statewide annual meeting of the Transportation Association of South Carolina (TASC). Presentation made to attendees on alternative fuels.
Spring 2003	Advancing the Choice Event at the University of South Carolina, Columbia campus

Spring 2003	Host SC Resource Conservation Workshop with all state and federal agencies on waste and emission reductions, including purchase and use of alternative fuel vehicles
Spring 2003	Third Palmetto State Clean Fuels Coalition Newsletter published
Spring 2003	Full Stakeholder meeting hosted by the Catawba Regional Council of Governments

XI. GLOSSARY OF TERMS*

Additives: Chemicals added to fuel in very small quantities to improve and maintain fuel quality. Detergents and corrosion inhibitors are examples of gasoline additives.

Air Quality Management District (AQMD): A term used principally in California to describe administrative districts organized to control air pollution. Nationwide, AQMDs are parallel to the areas designated for classification against the National Ambient Air Quality Standards (NAAQS). Generally, AQMDs and their national parallel encompass multiple jurisdictions and closely follow the definition of Consolidated Metropolitan Statistical Areas and Metropolitan Statistical Areas.

Air Toxics: Toxic air pollutants defined under Title II of the Clean Air Act (CAA), including benzene, formaldehyde, acetaldehyde, 1-3 butadiene and polycyclic organic matter (POM). Benzene is a constituent of motor vehicle exhaust, evaporative and refueling emissions. The other compounds are exhaust pollutants.

Alcohols: Organic compounds that are distinguished from hydrocarbons by the inclusion of a hydroxyl group. The two simplest alcohols are methanol and ethanol.

Alternative Fuels: As defined pursuant to the EPACT, methanol, denatured ethanol and other alcohols, separately or in mixtures of 85% by volume or more with gasoline or other fuels, CNG, LNG, LPG, hydrogen, "coal derived liquid fuels," fuels "other than alcohol" derived from "biological materials", electricity, neat biodiesel, or any other fuel determined to be "substantially not petroleum" and yielding "substantial energy security benefits and substantial environmental benefits"

Alternative Fuel Provider: A fuel provider (or any affiliate or business unit under its control) is an alternative-fuel provider if its principal business is producing, storing, refining, processing, transporting, distributing, importing or selling (at wholesale or retail) any alternative fuel (other than electricity); or generating, transmitting, importing or selling (at wholesale and retail) electricity; or that fuel provider produces, imports, or produces and imports (in combination), an average of 50,000 barrels per day of petroleum and 30% (a substantial portion) or more of its gross annual revenues are derived from producing alternative fuels.

Alternative Fuel Vehicle (AFV): As defined by the Energy Policy Act (EPACT), any dedicated, flexible fueled, or dual fueled vehicle designed to operate on at least one alternative fuel.

Bi-Fuel Vehicle: A vehicle with two separate fuel systems designed to run on either an alternative fuel or gasoline or diesel, using only one fuel at a time. Bi-fuels are referred to as "dual fuel" vehicles in the CAA and EPACT.

Biodiesel: A biodegradable transportation fuel for use in diesel engines that is produced through transesterifcation of organically derived oils or fats. Biodiesel is used as a component of diesel fuel. In the future it may be used as a replacement for diesel fuel.

Carbon Dioxide (CO_2): A product of combustion that has become an environmental concern in recent years. CO_2 is a "greenhouse gas" that traps the earth's heat and contributes to the potential for global warming.

Carbon Monoxide (CO): A colorless, odorless gas produced by the incomplete combustion of fuels with a limited oxygen supply, as in automobile engines. CO is poisonous if inhaled, entering the bloodstream through the lungs and forming carboxyhemoglobin, a compound that inhibits the blood's capacity to carry oxygen to the organs and tissues. CO can impair exercise capacity, visual perception, manual dexterity and learning functions.

Clean Air Act (CAA): The original Clean Air Act was passed in 1963. The law set emissions standards for stationary sources (e.g., factories, power plants). The CAA was amended several times, most recently in 1990. The Amendments of 1970 introduced motor vehicle emission standards (e.g., automobiles, trucks). Criteria pollutants included lead, ozone, CO, SO_2, NO_x, and PM, as well as air toxics. In 1990, reformulated gasoline (RFG) and oxygenated gasoline provisions were added. The RFG provision requires use of RFG *all year* in certain areas. The oxygenated gasoline provision requires the use of oxygenated gasoline during *certain months,* when CO and ozone pollution are most serious. The regulations also require certain fleet operations to use clean-fuel vehicles in 22 cities.

Clean Fuel: CAA (as amended in 1990) specification that identifies RFG and alternative fuels as clean fuel.

Clean Fuel Fleet Program: Federal program requiring fleet purchase of clean fuel vehicles beginning in 1988.

Clean Fuel Vehicle (CFV): Any vehicle certified by EPA as meeting certain federal emissions standards. The three categories of federal CFV standards from least to most stringent are LEV, ULEV, and ZEV. The ILEV standards are voluntary and do not need to be adopted by states as part of the Clean Fuel Fleet Program. CFVs are eligible for two federal programs, the California Pilot Program and the Clean Fuel Fleet program. CFV exhaust emissions standards for light-duty vehicles and light-duty trucks are numerically similar to those of the California Low-Emission Vehicle Program.

Compressed Natural Gas: Natural gas that has been compressed under high pressures, typically between 2000 and 3600 psi, held in a container. The gas expands when released as it is injected.

Converted or Conversion Vehicle: A vehicle originally designed to operate on gasoline or diesel that has been modified or altered to run on an alternative fuel.

Dedicated Vehicle: Operates solely on one fuel. Generally, dedicated vehicles provide superior emissions and performance results because their design has been optimized for operation on only one fuel.

Denatured Alcohol: Ethanol that contains a small amount of toxic substance, such as methanol or gasoline, which cannot be removed easily by chemical or physical means. Alcohols intended for industrial use must be denatured to avoid federal alcoholic beverages tax.

Domestic Fuel: As defined by the Energy Policy Act, Section 301, domestic fuels is derived from resources within the United States, its possessions and commonwealths, and Canada and Mexico (the two nations in a free-trade agreement with the U.S.).

Dual Fuel Vehicle:

EPACT Definition: Vehicle designed to operate on combination of an alternative fuel and a conventional fuel. This includes: a) vehicles using a mixture of gasoline and diesel and an alternative fuel in one tank, commonly called flexible fueled vehicles; and b) vehicles capable of operating either on an alternative fuel, a conventional fuel or both, simultaneously using two fuel systems commonly called bi-fuel vehicles.

CAA Definition: Vehicle with two separate fuel systems, designed to run on either an alternative fuel or conventional gasoline, using only one fuel at a time.

E10 (Gasohol): Ethanol/gasoline mixture containing 10% denatured ethanol and 90% gasoline by volume.

E85: Ethanol/gasoline mixture containing 85% denatured ethanol and 15% gasoline, by volume.

Electricity: Electric current used as a power source. Electricity can be generated from a variety of feedstocks including oil, coal, nuclear, hydro, natural gas, wind and solar. In electric vehicles, onboard rechargeable batteries power an electric motor.

Electric Vehicle: A vehicle powered by electricity, generally provided by storage batteries but also provided by photovoltaic cells or fuel cells.

Energy Policy Act of 1992 (EPACT): A broad ranging act signed into law on October 24, 1992. Titles III, IV, V, XV, and XIX of EPACT deal with alternative transportation fuels. EPACT accelerates the purchase requirements of AFVs by the federal fleet, proposes eliminating the cap on Corporate Average Fuel Economy (CAFÉ) credits that manufacturers can earn by producing dual and flexible fuel vehicles, and requires fleets in large urban areas to purchase AFVs. Establishes tax incentives for purchasing AFVs, converting conventional gasoline vehicles to operate on alternative fuels and installing refueling or recharging facilities by the private sector.

Ethanol (also known as Ethyl Alcohol, Grain Alcohol, CH_3CH_2OH): Can be produced chemically from ethylene or biologically from the fermentation of various sugars from

carbohydrates found in agricultural crops and cellulosic residues from crops or wood. Used in the United States as a gasoline octane enhancer and oxygenate, it increase octane 2.5 to 3.0 numbers at 10% concentration. Ethanol also can be used in higher concentrations in alternative fuels vehicles optimized for its use.

Feedstock: Any material converted to another form of fuel or energy product. For example, corn starch can be used as a feedstock for ethanol production.

Flexible Fuel Vehicle (FFV): Vehicles with a common fuel tank designed to run on varying blends of unleaded gasoline with either ethanol or methanol.

Fuel Cell: An electrochemical engine (no moving parts) that converts the chemical energy of a fuel, such as hydrogen, and an oxidant, such as oxygen, directly to electricity. The principal components of a fuel cell are catalytically activated electrodes for the fuel (anode) and the oxidant (cathode) and an electrolyte to conduct ions between the two electrodes.

Global Warming: The theoretical escalation of global temperatures caused by the increase of greenhouse gas emissions in the lower atmosphere.

Greenhouse Effect: A warming of the earth and its atmosphere as a result of the thermal trapping of incoming solar radiation by CO_2, water vapor, methane, nitrous oxide, chlorofluorocarbons and other gases, both natural and man-made.

Hybrid-Electric Vehicle (HEV): A vehicle that is powered by two or more energy sources, one of which is electricity. HEVs may combine the engine and fuel system of a conventional vehicle with the batteries and electric motor of an electric vehicle in a single drive train.

Inherently Low-Emission Vehicle (ILEV): FEDERAL ONLY. Describes vehicle meeting EPA's CFV ILEV standards. Tailpipe standards may be HC LEV with ULEV NOx, ULEV, or ZEV and includes the additional requirement that evaporative emissions be 2 grams per test over the full test procedure and 5 grams per test without the use of any auxiliary emission control devices. ILEVs will be dedicated AFVs in most cases. Dual-fuel vehicles will be considered ILEVs only if both fuels meet the standard. (Very low-volatility gasoline may also meet the standard.) ILEVs are exempt from certain transportation control measures, including high-occupancy vehicle (HOV) lane restrictions. This standard is voluntary and need not be adopted by states.

Liquefied Natural Gas (LNG): Natural gas that has been condensed to a liquid typically by cryogenically cooling the gas.

Liquefied Petroleum Gas (LPG): A mixture of hydrocarbons found in natural gas and produced from crude oil, used principally as a feedstock for the chemical industry, home heating fuel, and motor vehicle fuel. Also known as the principal constituent of propane.

Low-Emission Vehicle (LEV): Describes vehicle meeting either EPA's CFV LEV standards or CARB's California Low Emission Vehicle Program LEV standards. LEVs produce fewer emissions than TLEVs.

Methanol (also known as Methyl Alcohol, Wood Alcohol, CH 3 OH): A liquid fuel formed by catalytically combining CO with hydrogen in a 1:2 ratio under high temperature and pressure. Commercially, it is typically manufactured by steam reforming natural gas. Also formed in the destructive distillation of wood.

National Ambient Air Quality Standards (NAAQS): Ambient standards for criteria air pollutants specifically regulated under the CAA. These pollutants include ozone, CO, NO_2, lead, particulate matter and SO_2.

National Low-Emission Vehicle (NLEV) Program: Still under development, this program creates voluntary requirements which automakers can adopt in lieu of compliance with other vehicle emission control measures. The program applies to the manufacture of new light-duty vehicles and new light-duty trucks up to 6,000 lb GVWR. Vehicle exhaust emission standards have been established for the 13 northeastern states of the Ozone Transport Commission, applicable on and after the 1997 model year.
Standards are extended to the rest of the U.S., except California, on and after the 2001 model year. In general, the standards lay between levels established for the federal Tier I Program and the California LEV Program. Automakers can use a manufacturer's effective average standard to meet the non-methane organic gas standard. Vehicles are certified with California test procedures.

Natural Gas: A mixture of gaseous hydrocarbons, primarily methane, occurring naturally in the earth and used principally as a fuel.

Nonattainment Area: A region, determined by population density in accordance with the U.S. Census Bureau, which exceeds minimum acceptable NAAQS for one or more "criteria pollutants" (see **Clean Air Act and NAAQS**). Such areas are required to seek modifications to their State Implementation Plans (SIPs), setting forth a reasonable timetable using EPA-approved means to achieve attainment of NAAQS for these criteria pollutants by a certain date. Under the CAA, if a nonattainment area fails to attain NAAQS, EPA may superimpose a Federal Implementation Plan (FIP) with stricter requirements or impose fines, construction bans, cutoffs in federal grant revenues, etc., until the area achieves the applicable NAAQS.

Octane Rating (Octane Number): A measure of a fuel's resistance to self ignition, hence a measure as well of the antiknock properties of the fuel.

• ***Pump Octane:*** The octane as posted on retail gasoline dispensers as (R+M)/2; same as Antiknock Index.

• ***Motor Octane:*** The octane as tested in a single-cylinder octane test engine at more severe operating conditions. Motor Octane Number (MON) affects high-speed and part-throttle knock and performance under load, passing, climbing and other operating

conditions. Motor octane is represented by the designation M in the (R+M)/2 equation and is the lower of the two numbers.

• ***Research Octane Number (RON):*** The octane as tested in a single-cylinder octane test engine operated under less severe operating conditions. RON affects low- to medium-speed knock and engine run-on. Research Octane is presented by the designation R in the (R+M)/2 equation and is the higher of the two numbers.

Original Equipment Manufacturer (OEM): Manufacturers that produce vehicles that meet EPAct definitions of alternative fuel vehicles and come fully equipped from the manufacturer with alternative fuel systems. OEM does not refer to after market conversions.

Oxides of Nitrogen (NOx): Regulated air pollutants, primarily NO and NO_2, but including other substances in minute concentrations. Under the high pressure and temperature conditions in an engine, nitrogen and oxygen atoms in the air react to form various NO_x. Like hydrocarbons, NO_x are precursors to the formation of smog. They also contribute to the formation of acid rain.

Ozone: Tropospheric ozone (smog) is formed when volatile organic compounds (VOCs), oxygen and NO_x react in the presence of sunlight (not to be confused with stratospheric ozone, which is found in the upper atmosphere and protects the earth from the sun's ultraviolet rays). Though beneficial in the upper atmosphere, at ground level, ozone is a respiratory irritant and considered a pollutant.

Phase Separation: The phenomenon of a separation of a liquid or vapor into two or more physically distinct and mechanically separable portions or layers.

Reformulated Gasoline (RFG): Gasolines that have had their compositions and/or characteristics altered to reduce vehicular emissions of pollutants, particularly pursuant to EPA regulations under the CAA.

Refueling Emissions: VOC vapors that escape from the vehicle fuel tank during refueling. Stage II pump controls and onboard refueling vapor recovery systems (ORVR) are intended to control these emissions.

Smog: A visible haze caused primarily by particulate matter and ozone.

State Implementation Plan (SIP): Plan that a state must submit to EPA under the CAA to demonstrate compliance to NAAQS.

Super Ultra-Low-Emission Vehicle (SULEV): Describes California medium-duty vehicle that produces fewer emissions that an ULEV. There is no federal equivalent and therefore qualifies as a ULEV under CFF.

Tax Incentives: In general, a means of employing the tax code to stimulate investment in or development of a socially desirable economic objective without direct expenditure from

the budget of a given unit of government. Such incentives can take the form of tax exemptions or credits.

Toxic Emission: Any pollutant emitted from a source that can negatively affect human health or the environment.

Transitional Low-Emission Vehicle (TLEV): Describes vehicle meeting either EPA's CFV TLEV standards or CARB's California Low-Emission Vehicle Program TLEV standards. TLEVs produce fewer emissions than federal Tier 1 vehicles. TLEVs are eligible for the federal California Pilot Program but not eligible for the Clean-Fuel Fleet Program.

Transportation Control Measures (TCM): Restrictions imposed by state or local governments to limit use or access by vehicles during certain times or subject to specific operating requirements, e.g., high-occupancy vehicle (HOV) lanes.

Ultra-Low-Emission Vehicle (ULEV): Describes vehicle meeting either EPA's CFV ULEV standards or CARB's California Low-Emission Vehicle Program ULEV standards. ULEVs produce fewer emissions than LEVs. Fleets who purchase CFV ULEVs may earn credits under the Clean-Fuel Fleet Vehicle Program. Manufacturers that sell CFV ULEVs may earn credits under the federal California Pilot Program.

U.S. Department of Energy (DOE): A department of the federal government, established by the Carter Administration in 1977, to consolidate energy-oriented programs and agencies. The DOE mission includes the coordination and management of energy conservation, supply, information dissemination, regulation, research, development and demonstration. The Department includes the Office of Transportation Technologies, the umbrella of the Office of Alternative Fuels.

U.S. Environmental Protection Agency (EPA): A government agency, established by the Nixon Administration in 1970, responsible for the protection of the environment and public health. EPA seeks to reduce air, water and land pollution and pollution from solid waste, radiation, pesticides and toxic substances. EPA also controls emissions from motor vehicles, fuels and fuel additives.

Volatile Organic Compound (VOC): Reactive gases released during combustion or evaporation of fuel and regulated by EPA. VOCs react with NO_x in the presence of sunlight and form ozone.

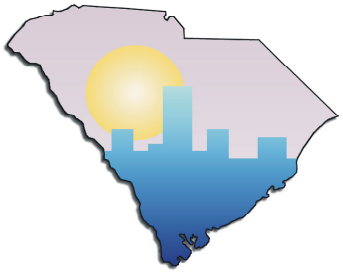
Zero-Emission Vehicle (ZEV): Describes vehicle meeting either EPA's CFV ZEV standards or CARB's California Low-Emission Vehicle Program ZEV standards. ZEV standards, usually met with electric vehicles, require zero vehicle (not power plant source) emissions. ZEVs earn more Clean-Fuel Fleet Vehicle Program credits than ULEVs. ZEVs may also meet ILEV standards.

*Source Alternative Fuel Glossary of Terms, Alternative Fuel Information, U.S. Department of Energy

APPENDIX A

Letter of Commitment

Catawba Regional Council of Governments
Post Office Box 450
Rock Hill, South Carolina 29731
(803) 327-9041
fax (803) 327-1912



University of South Carolina
School of the Environment
Columbia, South Carolina 29208
(803) 777-9061
fax (803) 777-0536

Palmetto State Clean Fuels Coalition
Letter of Commitment

We, the undersigned private, municipal, state and federal entities, along with individual stakeholders, hereby agree to work together for the common interest of promoting the acquisition and use of alternative fuel vehicles throughout the State of South Carolina.

We agree to work toward reducing the dependence on petroleum-based and imported fuels of fleets in South Carolina and meeting vehicle emissions standards. Furthermore, we hereby acknowledge our willingness to work with interested parties to educate the public on the existing federal mandates and to coordinate statewide and regional efforts to encourage the use of cleaner burning, renewable transportation fuels ('alternative fuels') and their vehicles ('AFVs'), as well as to develop the refueling infrastructure necessary to sustain the industry.

Signatories will work together in a coordinated effort as the Palmetto State Clean Fuels Coalition (PSCFC). Stakeholders will work with the PSCFC staff to establish a Board which will have, at a minimum, at least one representative of each of the vested interests—elected officials, fuel providers, vehicle manufacturers, private and public sector fleet managers, and respective members from within the health care and lobbying industries.

As stakeholders in the PSCFC, we agree to undertake our best efforts to achieve the specific goals and objectives set forth in the Palmetto State Clean Fuels Coalition Program Plan.

Signatories of this Letter of Commitment do so as an indication of their intent to sign the Memorandum of Understanding (MOU) once the PSCFC is officially designated as a "Clean Cities" coalition.

The MOU is a voluntary "good faith" commitment to help achieve the goals detailed above. Neither the MOU nor the Letter of Commitment is a binding contract and there are no penalties for stakeholders who fail to meet their commitments.

_____ _____

Name, Title Date

_____

Company/Entity

APPENDIX B

Stakeholder Lists

Official Stakeholder/MOU Signatory List				
Organization	**Name & Title**	**Address**	**Telephone, Fax & E-mail**	**Category & Fleet**
South Carolina Energy Office	Mitchell M. Perkins Director, Energy Program	1201 Main Street Columbia, SC 29201	T: 803-737-8030 F: 803-737-9846 E-mail: mperkins@ogs.state.sc.us	Government: State Fleet: Yes EPACT: Yes
South Carolina State Fleet Management	Jeff McCormack Program Manager SC State Budget & Control Board	1022 Senate Street Columbia, SC 29201-3160	T: 803-737-1504 F: 803-737-1160 E-mail: jmccormack@ogs.state.sc.us	Government: State Fleet: Yes EPACT: Yes
South Carolina Department of Health and Environmental Control	C. Earl Hunter Commissioner	2600 Bull Street Columbia, SC 29201	T: 803-898-4123 F: 803-898-3470 E-mail: hunterce@dhec.sc.gov	Government: State Fleet: Yes EPACT: Yes
South Carolina Department of Health and Environmental Control—Fleet	Jan Smoak Director Division of Support Services	2600 Bull Street Columbia, SC 29201	T: 803-898-3514 F: 803-898-3470 E-mail: smoakjm@dhec.sc.gov	Government: State Fleet: Yes EPACT: Yes
South Carolina Department of Transportation	John Gardner Director of Statewide Planning	PO Box 191 Columbia, SC 29202	T: 803-737-1444 F: 803-737-1858 E-mail: gardnerjf@dot.state.sc.us	Government: State Fleet: Yes EPACT: Yes
South Carolina Department of Agriculture	Charles Sharpe Commissioner	PO Box 11280 Columbia, SC 29211	T: 803-734-2190 F: 803-734-2199 E-mail: csharpe@scda.state.sc.us	Government: State Fleet: Yes EPACT: Yes
South Carolina Soybean Board	Margaret Owens Executive Director	PO Box 11280 Columbia, SC 29211	T: 803-734-1767 F: 803-469-6739 E-mail: mowens@tppg.com	Private Fleet: No EPACT: No
South Carolina Corn & Soybean Association	Margaret Owens Executive Director	PO Box 11280 Columbia, SC 29211	T: 803-540-2020 F: 803-540-2001 E-mail: mowens@tppg.com	Association Fleet: No EPACT: No
United States Postal Service	Harry A. Byrd Manager Vehicle Maintenance	PO Box 929341 Columbia, SC 29292-9341	T: 803-926-4301 F: 803-926-4310 E-mail: harry.a.byrd@usps.gov	USPS Fleet: Yes EPACT: Yes
Central Midlands Regional Transit Authority	Lowell C. Spires, Jr. Chairman	236 Stoneridge Drive Columbia, SC 29210	T: 803-376-5390 F: 803-376-5394 E-mail:	Transit Service Fleet: Yes EPACT: No

Official Stakeholder/MOU Signatory List				
Organization	**Name & Title**	**Address**	**Telephone, Fax & E-mail**	**Category & Fleet**
Duke Energy	Tim Shawver Manager EHS Business Analysis Corporate Environment	Duke Energy Mail CodeEC12ZA 526 S. Church St. Charlotte, NC 28202	T: 704-382-4449 F: 704-373-6410 E-mail: tsshawve@duke-energy.com	Fuel Provider Fleet: Yes EPACT: Yes
York County Natural Gas Authority	Steve Clark Manager Commercial Division	YCNGA PO Box 11907 Rock Hill, SC 29730	T: 803-327-2035 F: 803-327-2000 E-mail: steve.clark@ycnga.com	Fuel Provider Fleet: Yes EPACT: No
United Energy Distributors	James "Red" Roberts CEO	PO Box 6987 Aiken, SC 29804	T: 888-207-2009 F: 803-642-0115 E-mail: jrob795669@aol.com	Fuel Distributor Fleet: Yes EPACT: No
Culp Petroleum	Rick Martin CEO	PO Box 10815 Rock Hill, SC 29731-0815	T: 803-324-3109 F: 803-324-8152 E-mail: rick@culppetroleum.com	Fuel Distributor Fleet: Yes EPACT: No
Brandi Petroleum	Bob Brandi CEO Pit Stop Convenience Stores	279 Cedarcrest Drive Lexington, SC 29072	T: 803-957-7367 F: 803-957-1581 E-mail:	Fuel Distributor Fleet: Yes EPACT: No
Palmetto Propane	Todd Shealy Operations Manager	PO Box 4539 Batesburg-Leesville SC 29070	T: 803-532-4414 F: 803-532-4533 E-mail: Todds@palmettopropane.com	Fuel Provider Fleet: Yes EPACT: No
KC Fuels, LLC	Kevin Christopher CEO	1437 Snyder Street Rock Hill, SC 29732	T: 803-324-9478 F: E-mail: kev_c@hotmail.com	Private Fleet: No EPACT: No
University of South Carolina	Derrick Huggins Director Transportation Services	703 Pendleton Street Columbia, SC 29201	T: 803-777-9345 F: 803-777-7736 E-mail: dehugg@sc.edu	University Fleet: Yes EPACT: Yes
University of South Carolina—	Dr. Bruce C. Coull Dean	702G Byrnes Building Columbia, SC 29208	T: 803-777-9153 F: 803-777-5715 E-mail: coull@environ.sc.edu	University Fleet: Yes EPACT: Yes
York Technical College	Dr. Edward Duffy Vice President for Development	452 S. Anderson Road Rock Hill, SC 29730	T: 803-327-8012 F: 803-327-8802 E-mail: duffy@yorktech.com	University Fleet: Yes EPACT: Yes
Sustainable Universities	Trish Jerman Director	University of South Carolina	T: 803-777-7760 F: 803-777-5715 E-mail: pjerman@environ.sc.edu	University Fleet: Yes EPACT: Yes

Official Stakeholder/MOU Signatory List				
Organization	**Name & Title**	**Address**	**Telephone, Fax & E-mail**	**Category & Fleet**
Alternative Fuels Solutions, LLC	Ed White President	80 Cliffcreek Trace Atlanta, Georgia 30350	T: 678-641-8245 F: 770-650-5868 E-mail: ediannew@attbi.com	Organization Fleet: No EPACT: No
The Public Policy Group	Douglas E. Bryant Director Health Care & Environmental Compliance	1441 Main Street Suite 1000 Columbia, SC 29201	T: 803-540-2020 F: 803-540-2001 E-mail: dbryant@tppg.com	Other: Lobbyist Fleet: No EPACT: No
Lancaster County	J. Chappell Hurst, Jr. Administrator	PO Box 1809 Lancaster, S.C. 29721	T: 803-285-1565 F: 803-285-3361 E-mail: iplyler@lancastercountysc.net	Government: County Fleet: Yes EPACT: No
City of Lancaster	Steve Willis Administrator	PO Box 1149 Lancaster, SC 29721	T: 803-286-8414 F: 803-286-9690 E-mail: citylanc@infoave.net	Government: City Fleet: Yes EPACT: No
York County	Al Greene Manager	PO Box 66 York, SC 29745	T: 803-684-8511 F: 803-684-8550 E-mail: algreene@yorkcountygov.com	Government: County Fleet: Yes EPACT: No
City of Rock Hill	Marty Burr Fleet Manager	PO Box 11706 Rock Hill, SC 29731	T: 803-329-5551 F: 803-329-7007 E-mail: mburr@ci.rock-hill.sc.us	Government: City Fleet: Yes EPACT: No
City of Tega Cay	Grant Duffield City Manager	PO Box 3399 Tega Cay, SC 29715	T: 803-548-3512 F: 803-548-1400 E-mail:	Government: City Fleet: Yes EPACT: No
Town of Fort Mill	David Hudspeth Town Manager	PO Box 159 Fort Mill, SC 29715	T: 803-547-2034 F: 803-547-4722 E-mail: dhudspeth@comporium.net	Government: City Fleet: Yes EPACT: No
Mark Hall	Interested Citizen	2142 Kingsbury Drive Sumter, SC 29154	T: 803- F: 803-895-9998 E-mail: hall.mark@shawafb.com	Other: Individual Fleet: No EPACT: No

Official Stakeholder/MOU Signatory List				
Organization	**Name & Title**	**Address**	**Telephone, Fax & E-mail**	**Category & Fleet**
Catawba Regional Council of Governments	Harold Shapiro, Executive Director	PO Box 450 Rock Hill, SC 29731	T: 803-327-9041 F: 803-327-1912 E-mail: hshapiro@catawbacog.org	Other: COG Fleet: Yes EPACT: No
Central Midlands Council of Governments	Mitzi Teel-Javers Director of Transportation	236 Stoneridge Drive Columbia, SC 29210	T: 803-376-5390 F: 803-376-5394 E-mail: mteel@centralmidlands.org	Government Fleet: Yes EPACT: No
Lower Savannah Council of Governments	Connie Shade Assistant Director	PO Box 850 Aiken, SC 29802	T: 803-649-7981 F: 803-649-2248 E-mail: cshade@lscog.org	Government Fleet: Yes EPACT: No
Alternative Fuels Solutions, LLC	Ed White President	80 Cliffcreek Trace Atlanta, Georgia 30350	T: 678-641-8245 F: 770-650-5868 E-mail: ediannew@attbi.com	Organization Fleet: No EPACT: No
South Carolina State Museum	Tom Falvey Director	301 Gervais Street Columbia, SC 29202	T: 803-898-4901 F: 803-898-4917 E-mail: falvet@museum.state.sc.us	Other: Museum Fleet: No EPACT: No
Aiken Electric Cooperative	Bret Evans Fleet Manager	PO Box 417 Aiken, SC 29802	T: 803-624-5000 F: 803- E-mail: bevans@aikenco-op.org	Fuel Provider Fleet: Yes EPACT: No

Potential Stakeholder/Other Contacts List				
Organization	**Name & Title**	**Address**	**Telephone, Fax & E-mail**	**Category & Fleet**
South Carolina Electric and Gas (SCE&G)	Davis Cameron Fleet Manager	5 National Guard Road Columbia, SC 29201	T: 803-217-7437 F: 803- E-mail: dcameron@scana.com	Utility Fleet: Yes EPACT: Yes
Savannah River Site--USDOE	Harry Gillam Chris Goodman	Savannah River Site	T: 803-725-2201 F: 803- E-mail: chris.Goodman@srs.gov	Government: Federal Fleet: Yes EPACT: Yes
Fort Jackson	Barbara Williams Environmental		T: 803-725-2201 F: 803- E-mail: williamsb@jackson.army.mil	Government: Federal Fleet: Yes EPACT: Yes
South Carolina National Guard	Fleetwood Stokes Environmental		T: 803-725-2201 F: 803- E-mail: stokesjf@tag.scmd@state.sc.us	Government: Federal Fleet: Yes EPACT: Yes
American Lung Association of South Carolina	Greg White Director	1817 Gadsden Street Columbia, SC 29201	T: 803-779-5864 F: 803-254-2711 E-mail: gwhite@lungsc.org	Organization Fleet: No EPACT: No
Schwan's	Mike Webster SE Fleet Administrator	18302 Highwoods Preserve Pkwy #326 Tampa, FL. 33647	T: 813-615-2474 F: 803- E-mail: Michael.Webster@schwans.com	Delivery Fleet: Yes EPACT: No
Aiken County Transit	Jeanene Knapp Transit Manager	1680 Richland Ave West, Suite 130 Aiken, SC 29801	T: 803-642-1520 F: 803-642-7587 E-mail: jknapp@aikencounty.net	Transit Fleet: Yes EPACT: No
Richland County	Roxanne Matthews Research Analyst	PO Box 192 Columbia, SC 29202	T: 803-576-2057 F: 803-576-2137 E-mail: roxannematthes@richlandonline.com	Government: County Fleet: Yes EPACT: No
Lexington County	Ashley Bloom Assistant to the Administrator		T: 803-359-8100 F: 803- E-mail:	Government: County Fleet: Yes EPACT: No
City of Columbia	David Knoche Director of Fleet Services	2910 Colonial Drive Columbia, SC 29203	T: 803-545-3805 F: 803-733-8500 E-mail: jdknoche@columbiasc.net	Government: City Fleet: Yes EPACT: No

Potential Stakeholder/Other Contacts List				
Organization	**Name & Title**	**Address**	**Telephone, Fax & E-mail**	**Category & Fleet**
Southern Gas	Mike Funderburk District Manager	1117 W Meeting St Lancaster, SC 29720	T: 803-283-9911 F: 803-283-2999 E-mail: mfunderburk@heritagepropane.com	Fuel Provider Fleet: Yes EPACT: No
Suburban Propane	Joey Swittenberg District Manager	611 12th Street Columbia, SC 29202	T: 803-796-2884 F: 803- E-mail: csc1218@suburbanpropane.com	Fuel Provider Fleet: Yes EPACT: No
South Carolina Department of Education	Donald Tudor Director of Transportation	1429 Senate Street Columbia, SC 29201	T: 803-734-8248 F: 803-734-8254 E-mail: dtudor@sde.state.sc.us	Government: School Fleet: Yes EPACT: No
Comporium Communications	Paul Kutz	PO Box 470 Rock Hill, SC 29731	T: 803- F: 803- E-mail: paul.kutz@comporium.com	Telephone and Cable Fleet: Yes EPACT: No

APPENDIX C

Fleet Survey Tables

Palmetto State Clean Fuels Coalition
Alternative Fuel Vehicle Survey

Company/Fleet[1,2,3,4]	Current AFV Numbers								Projected AFV Numbers Through 2008							
	Fleet Total	CNG	LNG	LPG	E-85	M-85	Electric	Biodiesel	Fleet Total	CNG	LNG	LPG	E-85	M-85	Electric	Biodiesel
South Carolina State Fleet[3]	3,355	1			125			400	3,355	38		20	375			800
General Services Administration[2,4]	235								235				135			100
Savannah River Site[2,4]	1,370				565				1,370				600			95
Duke Energy[3]	161								161				19			25
United States Postal Service--Columbia Area[3]	683								783				150			
United States Postal Service--Upstate Area[3]	300								400				80			
South Carolina Department of Education[2,4]	1,232								1,232				23			100
York County Natural Gas Authority[1]	50	4							53	5 LD 2 MD						
Aiken Electric Cooperative[1]	90							47	90				10			50
Chester County Natural Gas Authority[1]	19	1							19	2						
Southern Gas--Rock Hill	6			2 MD 2 HD					6			2 MD 2 HD				
Southern Gas--Lancaster	15			6 MD 4 HD					15			6 MD 4 HD				
Palmetto Propane[1]	35			1 MD 10 HD					35			1 MD 11 HD				
Suburban Propane																
United Energy Distributors, Incorporated[1]	8			1 MD	1			6	10			1 MD	1			8
Culp Petroleum[1]	12			2 MD					15			2 MD	2			4
Brandi Petroleum[1]																
Schwan's[4]	50			13 MD					86			49 MD				
Central Midlands Regional Transit Authority[1]	80	7 HD							80	7 HD						42
Aiken County Transit/Council on Aging[4]	17							6	20							10
York Technical College[3]	22	3					8		24	3			8		8	5
Winthrop University[3]	80								80				10			5
University of South Carolina--Columbia[3]	457	1 MD					10	2	457	1 MD			88		10	34
University of South Carolina--Aiken[4]	10								10				3			
Catawba Regional Council of Governments[1]	3								3				2			
Central Midlands Council of Governments[1]	5								5				3			
York County[1]	274								274				15			25

Company/Fleet[1,2,3,4]	Current AFV Numbers								Projected AFV Numbers Through 2008							
	Fleet Total	CNG	LNG	LPG	E-85	M-85	Electric	Biodiesel	Fleet Total	CNG	LNG	LPG	E-85	M-85	Electric	Biodiesel
City of Rock Hill[1]	440	3 HD							440	6 HD			12			10
Town of Fort Mill[1]	45								45				10			
City of Tega Cay[1]	24								25				10		4	
Lancaster County[1]	96								96			15	25			10
City of Lancaster[1]	110			1					110			10	25			10
Richland County[4]	847								847				12			
City of Columbia[4]	823								823				50			15
Lexington County[4]	674								674				10			
TOTALS	11,628	20	0	42	691	0	18	461	11,878	64	0	125	1,678	0	22	1,348

[1] Stakeholder Fleet

[2] EPAct Fleet

[3] Stakeholder and EPAct Fleet

[4] Entity Currently Going Through Process of Becoming a Stakeholder

NOTES:

All vehicles reported under the current AFV totals operate on laternative fuels at least 75% of the time. Additional AFVs exist, but were not included in current totals, but were included in projected AFV numbers.

SC State Fleet made the decision that for EPAct mandates, all State agencies will report together as one fleet. Stakeholder agencies are reported individually in this table.

APPENDIX D

Fueling Infrastructure Tables

Palmetto State Clean Fuels Coalition
Current and Projected Refueling/Recharging Stations

	Current Stations						Total Projected Stations by 2008					
Operator	**Access**	**CNG**	**LPG**	**E85**	**ELEC**	**B20**	**Access**	**CNG**	**LPG**	**E85**	**ELEC**	**B20**
South Carolina DHEC[1]	Private			1			Private			1		
SC State Fleet[1]	Private					6	Private		2			10
South Carolina Electric and Gas (SCE&G)	Public	1					Public	1				
United Energy Distributors, Inc.[1]	Public		1	1		1	Public		1	2		2
Savannah River Site[2]	Private			2 (1)			Private			2 (1)		
York County Natural Gas Authority[1]	Private	1					Private	1				
Chester County Natural Gas Authority[1]	Private	1					Private	1				
Aiken Electric Cooperative[1]	Private					1	Private					1
City of Rock Hill	Private	1					Private	1				
York Technical College[1, 3]	Private	1			3 (1)		Private	1			3 (1)	
University of South Carolina[1, 3]	Private				8 (1)	1	Private			1	8 (1)	1
Schwan's	Private		1				Private					
Southern Gas	Public		1				Public					
Suburban Propane	Public		6				Public					
Palmetto Propane	Public		2				Public					
U-Haul	Public		5									
Culp Petroleum[1]	Public		1				Public		1	2		2
Brandi Petroleum[1]	Public						Public			2		
Palmetto State Clean Fuels Coalition	Public						Public			6		
TOTALS		5	17	3	2	8		5	19	15	2	15

[1] Stakeholder Operator
[2] Reported as one (1) fueling point since both stations are on SRS site
[3] Reported as one charging point since located on campus

APPENDIX E

Survey Forms

Palmetto State Clean Fuels Coalition
Fleet Survey

Business/Agency Information		
Name of Business/Agency:		
Address:		County:
Contact Person:		Title:
Phone:	Fax:	E-Mail:
Type of Business/Agency:		

General Fleet Information		
Do you maintain a fleet of vehicles?	Yes:_____	No:_____
Where is your fleet housed?		County (s):
Can these vehicles be centrally fueled?	Yes:_____	No:_____

Total number of all vehicles in your fleet:	Current # of Vehicles Owned	Current # of Vehicles Leased	Vehicle Acquisitions to 2008 Owned	Vehicle Acquisitions to 2008 Leased
Light Duty (less than 8,500 GVW)				
Medium-Duty (8,500-26,000 GVW)				
Heavy-Duty (greater than 26,000 GVW)				

Are any of these vehicles capable of operating on alternative fuels? Yes: ___ No: ___

If yes, please indicate how many and type of fuel below:

	Current Fleet Heavy	Current Fleet Medium	Current Fleet Light	Vehicle Acquisitions to 2008 Heavy	Vehicle Acquisitions to 2008 Medium	Vehicle Acquisitions to 2008 Light
CNG						
LNG						
LPG/Propane						
Ethanol/Flex-Fuel						
Methanol						
Electric						
Biodiesel						
Hybrid						

Does your agency: Operate or use a private fueling/recharging facility? Yes:_____ No:_____

Use a public access service station? Yes:_____ No:_____

If you operate a fueling/recharging facility, indicate what types of fuels, number of facilities and locations below:

CNG: ___ LNG: ___ LPG: ___ Ethanol: ___ Methanol: ___ Electric: ___ Biodiesel: ___

Facility Location(s) _____

_____

Hours of Operation: _____

Forms of Payment (WEX, Voyager, etc.) _____

Indicate number of projected fueling/recharging facilities planned for construction by 2008:

CNG: ___ LNG: ___ LPG: ___ Ethanol: ___ Methanol: ___ Electric: ___ Biodiesel: ___

Would you like to receive information on:

Alternate Fuels: ___ Alternate Fuel Vehicles: ___ Palmetto State Clean Fuels Coalition: _____

Thank you for completing this survey.
Please return with comments via fax to:
(803) 327-1912
Please return by May 2, 2003

APPENDIX F

Executive Order

2001-35

WHEREAS, the September 11, 2001 terrorist attacks on the United States clearly demonstrate the fragility of the international oil distribution system, and political instability will be a hallmark of the Middle East for years to come; and

WHEREAS, the National Energy Policy Act of 1992 ("EPAct") identified a need for increased availability of indigenously produced alternative fuels as part of an overall effort to reduce dependence on foreign oil and improve air quality; and

WHEREAS, EPAct mandates that alternative fuel vehicles must constitute 75% of annual state fleet purchases; and

WHEREAS, EPAct identifies, among others, ethanol and biodiesel fuels as alternative fuels, and United States Department of Agriculture research revealed that South Carolina can produce both; and

WHEREAS, ethanol and biodiesel fuels can become a viable industry to diversify crop production and offer financially lucrative alternatives for South Carolina farmers; and

WHEREAS, South Carolina's Clean Cities Coalitions surveyed government agencies and private companies in their regions, and identified over one thousand alternative fuel vehicles but only one publicly available refueling station.

NOW THEREFORE, I do hereby:

1. Strongly support the efforts of South Carolina's Clean Cities Coalitions and private business to increase the use of alternative fuels in South Carolina.

2. Whenever practical and economically feasible, require all State agencies operating alternative fuel vehicles to use alternative fuels.

GIVEN UNDER MY HAND AND THE GREAT SEAL OF THE STATE OF SOUTH CAROLINA, THIS 18th DAY OF OCTOBER, 2001.

_____

JIM HODGES
Governor

ATTEST:

_____

JAMES M. MILES
Secretary of State

APPENDIX G

Alternative Fuel Vehicle Legislation Fact Sheet

Alternative Fuel Vehicle Legislation
Five Year Repeal of Motor Fuels Tax

Effect on General Fund:
$0.00
The repeal of the motor fuels tax will not effect the general fund. DOT currently receives the revenue from the motor fuels tax.

What will the legislation accomplish?
The purpose of this legislation is to accelerate the use of ethanol and biodiesel in the State of South Carolina by repealing the motor fuels tax (currently $0.16/gallon). It will also help DOT by including provisions to collect a road use fee from vehicles that are currently not paying a motor fuels tax such as electric vehicles, natural gas vehicles, and propane vehicles.

Why is such action necessary?
The Energy Policy Act of 1992 mandates that federal, state, and utility provider fleets purchase a certain percentage of alternative fuel vehicles each year. The purchase requirements began in 1996. This year, state fleets are required by law to ensure that 75% of the vehicles they purchase this year are capable of running on an alternative fuel.

In addition, Governor Hodges signed an Executive Order (attached) on October 16, 2001 mandating that state fleets use alternative fuel where available and affordable.

What is the situation in SC?
South Carolina is in full compliance with the letter of the law, but not with its intent. At present, there are only two publicly accessible alternative fuel refueling station in the state. Over 90% of our federal and state government fleets are comprised of E-85 flex-fuel vehicles, which are capable of running on blends of 85% ethanol and 15% gasoline, or just on regular gasoline. Because there is no fuel available, all those vehicles run on gasoline.

EPAct was written with energy security in mind. The goal of the legislation is to ensure our national security through a combination of energy conservation standards and transportation fuel replacement. All the alternative fuels listed in the bill are produced in the United States, and two (ethanol and biodiesel) could be produced in SC. This strategy has added value in that all the EPAct-defined alternative fuels burn more cleanly than gasoline, thus promoting better air quality in areas that use the fuel extensively.

How will this legislation increase the use of alternative fuel in SC?
The repeal of the motor fuels tax on alternative fuels will make their use attractive to consumers, especially our government fleets, who need to use the fuel but face criticism for doing so when they are more expensive. Gas stations are also more likely to install infrastructure for alternative fuels if the price is competitive with or cheaper than gasoline. This is especially true for fleets located near state or federal facilities where there are large concentrations of alternative fuel vehicles.

Who supports this legislation in SC?
DHEC, DOT, SCEO, SC Soybean Board, SC Trucking Association, SC Petroleum Council, State Fleet Management, SC Clean Fuels Coalition, United Energy Distributors, Inc., SC Sierra Club, SC Governor's Office, SC Farm Bureau, SC Department of Agriculture.

APPENDIX H

Stakeholder Recruitment Brochure

Palmetto State Clean Fuels Coalition
- We're On The Road to Cleaner Air-

The goal of the Palmetto State Clean Fuels Coalition is to reduce the State's dependence on petroleum-based fuels in an effort to promote improved **air quality**, **public health**, **energy security**, and **economic development**.

The Coalition

The Palmetto State Clean Fuels Coalition (PSCFC) is a collaboration of public and private agencies and businesses working together to promote the acquisition and use of alternative fuel vehicles and to create a network of alternate fueling infrastructure. The Coalition provides information, technical assistance, access to grant funds, and other services to member groups allowing the implementation of alternative fuels programs across the State in a cost-effective manner.

Clean Cities

The Palmetto State Clean Fuels Coalition is seeking designation as part of the U.S. Department of Energy's Clean Cities program. Clean Cities promotes partnerships to advance the use of alternative fuel vehicles (AFVs) and cleaner burning alternative fuels through education and legislation. As a coalition, we are locally based, which ensures that our stakeholders establish goals and objectives that will positively affect our State.
http://www.ccities.doe.gov/

Why Is South Carolina A Part Of Clean Cities?

Participating in this national partnership provides many benefits to stakeholders and the region including:

- Improved Air Quality
- Funding and Grants
- Widespread AFV Availability
- Expanded Fueling Infrastructure
- New Jobs and Commercial Opportunities
- Good Public Image

How Does The PSCFC Work?

Under the direction of a Coordinator, local businesses and governments work together to create a local coalition of people interested in using alternative fuel vehicles. The local coalition develops and follows a program plan that outlines the goals and objectives of the Coalition.

How To Become A Member

Members of the Coalition are referred to as stakeholders. Stakeholders are individuals and organizations that voluntarily commit to achieving the goals and objectives of the PSCFC Program Plan. Stakeholders formally acknowledge their commitment by signing a Memorandum of Understanding (MOU). The MOU is a written agreement that indicates the commitment to work together to support the efforts of the PSCFC and the goals and objectives outlined in the Program Plan. The MOU is not a binding contract, merely a statement of support.

Membership

The Palmetto State Clean Fuels Coalition is open to all interested parties who wish to join the effort to expand the use of alternative fuels. Currently the focus of the Coalition is a nine-county area that includes the four counties of the Catawba Region—Chester, Lancaster, Union and York—the four counties of the Central Midlands Region—Fairfield,

Newberry, Lexington and Richland—and Aiken in the Lower Savannah Region.

Stakeholders

Currently, PSCFC membership includes local, state and federal government representatives, universities, utilities, fuel providers, vehicle manufacturers and dealers, environmental groups, private businesses and individuals.

What Are Alternative Fuels?

Alternative fuels are being used today in place of gasoline and diesel fuel made from petroleum. The U.S. Department of Energy classifies the following fuels as "alternative fuels": biodiesel, electricity, ethanol, hydrogen, methanol, natural gas, propane, and solar energy. Alternative fuels are cleaner burning, domestically produced, renewable fuels. Using these alternative fuels can help our nation reduce its dependence on imported petroleum and improve air quality.

For more information contact Wendy Bell, Catawba Regional Council of Governments (803) 327-9041 wbell@catawbacog.org
or LeAnn Herren, USC School of the Environment (803) 777-9061 herren@environ.sc.edu

APPENDIX I

Program Plan Review Checklist

Palmetto State Clean Fuels Coalition
Program Plan Review Checklist

Topic	Page	Review Notes	
Introductory Statement and Coordinator Identification			**Location of Clarified Information**
1. Introductory statement with purpose of the document; brief overview of coalition; geographic area and population; total AFVs; month and year coalition established	3, 4	8 counties – 4 in the Catawba Region: Chester, Lancaster, Union and York and 4 in the Central Midlands Region: Fairfield, Newberry, Richland and Lexington Population: 886,167 First plan submitted Dec. 1999	Cover Letter and Page 1
2. Coordinator stated - name, organization, address, phone, fax, e-mail, coalition website (if available)	22	Identified, location gleaned from cover page stationery. Co-coordinators LeAnn Herren and Wendy Bell both 0.5 FTE, from the University of South Carolina	Pages 1 and 38
3. Coordinator Status - full or part time – part time, if part time – other coordinator duties listed and % of time spent on Clean Cities functions	22	Co-coordinators LeAnn Herren , from the University of South Carolina and Wendy Bell is with the COG both 0.5 FTE Wendy is Air Quality Rep. for COG and COG is funding her role	Pages 1 and 38
4. Coordinator funding source	Per RO	Grant by State Energy Program covers coordinator through designation, then seeking DOE Special Projects SEP grant	Section IV, Funds Received Pages 13-14 Goals Section VII, Page 33
Local Background and History			
5. Area description/coalition snapshot	1-4	Good	County Added see Cover Letter and Page4
6. Status of current local alternative fuel market, including all related coalition accomplishments and dates completed	13	Page 13 and throughout the plan. Pages 9-13 lists numerous grants awarded and proposals in development.	Pages 8-16

Palmetto State Clean Fuels Coalition
Program Plan Review Checklist

Topic	Page	Review Notes	
7. Description of coalition formation	1	Established 1998, COG coordinates Clean Cities efforts	Pages 2-6 and Section IX pages 41-43
8. Primary alternative fuels used - discussed and explained		Throughout the plan. E-85 is the primary fuel – > 90% of the AFVs are E-85. Increased use of CNG and Biodiesel are projected.	Section VI, Pages 18-21
9. Previous alternative fuel market development efforts and successes described		Yes, throughout the plan.	Throughout Plan
Energy Policy Act			
10. EPAct status identified	5	No EPAct fleets per plan. Previously reported EPAct fleets include the State and South Carolina Gas & Electric. Coalition needs to investigate other fleets in the area to determine which are EPAct mandated and then update the plan. State and utility fleets are usually EPAct mandated – what about the Federal fleet and Duke Energy. They are EPAct mandated.	Energy Policy Act pages 6-7 and Appendix B
11. Stakeholders subject to EPAct Status identified on the Current & Projected AFV Table		None identified – not accurate. Please correct	Appendix B Fleet Survey
12. All EPAct fleets filed compliance report with DOE and are in compliance		Per the EPAct database South Carolina Gas & Electric and the State are in compliance. Other EPAct fleets need to be identified and the plan needs to be corrected. Coalition should be aware of EPAct fleets.	Energy Policy Act Page 7 and Appendix B

Palmetto State Clean Fuels Coalition
Program Plan Review Checklist

Clean Air Act Amendments			
13. Attainment Status Identified	4	All areas are classified as being in attainment under the Clean Air Act of 1990. However, when the revised EPA ozone standards go into effect, review of data collected at air quality monitoring stations indicate that certain areas within the coalition region may not meet the new standards. The areas of concern include Lexington, Richland, York, Chester and Union Counties. South Carolina did not establish and alternative fuel program by 1998 and must comply with the federal Clean Fuel Fleet Program.	South Carolina Early Action Plan page 11
14. If applicable, state how becoming a Clean Cities coalition will help gain attainment status		N/A	South Carolina Early Action Plan page 11
Laws and Incentives			
15. Current laws to promote alternative fuel use described	7	April 2002, South Carolina State and House introduced bills to increase the use of ethanol and biodiesel by repealing the $0.16 tax on CNG, propane and LNG for 5 yrs., but allows State DOT to collect a fee of 2.5% of the total vehicle price. Repeal lowers the price of E-85 comparable to gasoline	Section III, Pages 8-12
16. Proposed legislation to promote alternative fuel use described	7	South Carolina Dept. of Health & Environment Control Bureau of Air Quality – Public Ozone education project	Section III, Pages 8-12

Palmetto State Clean Fuels Coalition
Program Plan Review Checklist

17. State Incentives – see www.fleets.doe.gov	7	All are not listed - other laws and incentives are listed on www.fleets.doe.gov	Section III State Incentives Pages 10-12 Piedmont Natural Gas Authority is not within PSCFC area
Grants/Funding			
18. Grants or funding to purchase AFVs or infrastructure received by coalition or stakeholders, project description, who awarded the funds, amount	3	South Carolina Energy Office grant awarded to University of South Carolina School of the Environment in Feb. 2002 to serve as the coalition's home base	Section IV, Pages 12-16

19. Status of grant projects	9 - 12	Coalition partnered with SEO and Dept. of Health and Environmental Control (SECDHEC)to build an ethanol refueling site – funds received although it is not clear provided the funds Coalition worked with South Carolina Electric and Gas, received funding from SEO and upgraded a CNG refueling site – started Dec. 2002, to be completed 2003 SCDHEC awarded $440,000 from fine levied by EPA to clean the air in Catawba region State to receive $1M in fines levied by EPA, COG was encouraged by the SCDHEC to work with the coalition and ethanol refueling stations – coordinator has been working with vendors to install infrastructure that is expected by open by the end of 2003 State Motor Vehicles dept. negotiating rates to use biodiesel in place of diesel. Currently using 142,000 gals of diesel annually and use is expected to double by Spring 2003 SEO, South Carolina Soybean Board and Carolina Soy LLC applied for Southeast Regional Biomass Energy Program funds to conduct a feasibility study to develop a biodiesel production facility Coalition, with others applied to National Soybean Board for funds to promote the use of biodiesel	Section IV, Pages 12-16

20. Other fund raising efforts described	9-12	State DOT proposed that the School of Environment add a student usage fee of $25 to the 2002-2003 tuition cost. Fee would be used to complete agreement with the Regional Transit Authority to expand routes for students and allow student to ride for free – similar proposal in place for faculty Coalition coordinated meetings with Propane Ed. Research Council to develop infrastructure Coalition collaborated with NEVC other coalitions with DOE Energy Broad Area Application to promote ethanol refueling infrastructure, in Sept. 2002 NEVC received $985,000, coalition working with SCDHEC to apply for E85 refueling station	Section IV, Pages 12-16
Stakeholder Description & Buy-In			
21. Discuss stakeholder meetings - frequency since initial kick-off meeting		No, please state.	Timeline, Section X, Pages 41-43
22. Stakeholders assisted in development of plan		Not stated	Workgroups page, Section IX, Pages 37-40
23. Description of each stakeholder organization	App.	Please indicate which stakeholders operate fleets	Appendix B Stakeholder List Appendix C Fleet Survey
24. Stakeholder commitments described		Not provided – must be included	Appendix A Letter of Commitment Appendix C Fleets Survey Appendix D Fueling Infrastructure

25. Private sector niche market fleet represented as stakeholders		UPS is a stakeholder, but no current or projected AFVs? Several school districts listed as stakeholders, but no current or projected AFVs? Stakeholder USC Motor Pool – unclear if they currently or project to operate AFVs? Federal Express is a stakeholder, but no current or projected AFVs? South Carolina Gas & Electric is a stakeholder, but no current or projected AFVs? Include all stakeholders operating fleets on AFV table	Appendix C Fleet Survey, Goals Section VII
Current and Projected AFVs			
26. Existing alternative fuel market recommended number of existing AFVs - based on population	14	Population = 886,167 AFVs = 903 government AFVs (828 E-85 flex fuel) 99 private AFVs (40 CNG,14 E-85, 14 Electric and 10 biodiesel) 425 additional projected by 2004 Recommended Number of AFVs = 500 Based on number E-85 refueling sites, the 828 E-85 flex fuel vehicles are probably not using E-85 – provide fuel use information. The Fleet Survey Summary is confusing – no stakeholders are indicated with *;	Appendix C Fleet Survey and Section VI, Pages 18-21

27. When and how AFV survey conducted	13	Three surveys conducted throughout designation process. Government survey conducted by the South Carolina State Budget and Control Board, Office of State Fleet Management in the Summer of 2002. Not stated, but assumed that the private fleet survey was conducted by the coalition. Samples of both survey forms included as an appendix.	Section VI, Pages 18-19 Appendix C Fleet Survey
28. Table includes all organizations operating AFVs	13 App.	Does not appear to include all fleets, "The survey does not include buses for both school districts and mass transit." Include all organizations Projections are only provided for private fleets and projections are only through 2004. Need 5 year projections for private and government fleets.	Appendix C Fleet Survey
29. Table identifies organizations operating AFVs as a stakeholder/non-stakeholder	App.	Private fleet able notes that stakeholders are indicated with a *. None are indicated – probably an oversight.	Appendix C Fleet Survey
30. Table identifies stakeholder/non-stakeholder EPAct Fleets	App.	No, must be corrected	Appendix C Fleet Survey
31. Table identifies and lists AFV types separately (light-, medium- or heavy-duty)	App.	Yes	Appendix C Fleet Survey
32. Table identifies and lists AFVs by alternative fuel type separately	App.	Yes	Appendix C Fleet Survey
33. All AFVs in the coalition's geographic area listed on table	13	Does not appear to include all, "The survey does not include buses for both school districts and mass transit."	Appendix C Fleet Survey
34. Stakeholders operating AFVs will continue to do so	App.	Unclear. Government fleet projections not provided. Private fleet table does indicate which fleets are stakeholder operated and projections only provided through 2004 – need projections through 2007	Appendix C Fleet Survey

35. Fleet stakeholders not operating AFVs project to do so over the next 5 years	App.	Unclear. Government fleet projections not provided. Private fleet table does indicate which fleets are stakeholder operated and projections only provided through 2004 – need projections through 2007	Appendix C Fleet Survey and Goals Section VII
36. Projected AFVs listed in table are the sum of new and projected AFVs	App.	Information provided as requested	Appendix C Fleet Survey
37. Number of AFVs on table match number in narrative	14 & App.	Table in appendix states that USPS has 2 CNG AFVs, page 14 states that the USPS has 240 E-85. Page 14 states that a propane distributor has 6 propane AFVs – these are not included on the table.	Appendix C Fleet Survey and Section VI, Pages 18-19
38. AFVs vs. stations – enough stations to support AFVs and vice versa	14	Only 2 E85 stations in the State with only 1 of those in the coalition's geographic area (at the Dept. of Health and Environmental Control in Columbia – (587 of 828 E-85 flex fuel AFVs are located in Columbia)– all private access only (narrative indicates that the station is private access, table indicates that it is public access) 5 CNG stations in the State, 3 of the 5 are in the coalition's geographic area – all private access only - Other sites exist, but did not respond to the survey 28 propane sites in the State, 2 in coalition's geographic area - others exist, but did not respond to survey	Appendix C Fleet Survey, Appendix D Fuels Infrastructure and Section VI Pages 19-21
39. AFV totals on table are correct	App.	Yes	Appendix C Fleet Survey
40. AFVs counted accurately based on vehicle type and fuel use	App.	Are the projected USPS 219 E-85 AFVs flex-fuel?	Appendix C Fleet Survey
41. AFVs using Biodiesel counted/reported accurately	App.	Yes	Appendix C Fleet Survey, and Page 20
42. Bi-fuel AFVs reported and counted accurately – based on fuel use	14, App.	Page 14 states that USPS operates 250 E-85 AFVs, but these are not included on the table	Appendix C Fleet Survey

43. Stakeholder fleets operating AFVs provide 5 year projections with 17% annual growth		Projections not provided through 2004. Five year projections required – projections needed through 2007	Appendix C Fleet Survey and Section VI Pages 17-18 and Goals Section VII
Current and Projected Refueling/Recharging Stations			
44. When and how station survey conducted	13	In the Summer of 2002, the State Budget and Control Board, Office of State Fleet Management completed a project to identify and locate alternative fuel infrastructure in the state of South Carolina.	Revised May/June 2003 see Appendix D Fuels Infrastructure and Section VI, Pages 19-21
45. Table includes all known alternative refueling/recharging stations by fuel type	14	Page 14 states that additional sites are known, but did not respond to survey in time to be included in the plan. Also 14 EVs listed – no recharging sites listed.	Appendix D Fuels Infrastructure
46. Table states public or private accessibility	14 & App.	Page 14 states that E-85 site is only available to government fleets, the table indicates station is accessible to the public	Appendix D Fuels Infrastructure
47. Table includes station operators – indicate stakeholder/non-stakeholder	App.	Lists stations, does not include operator name, address, etc., does not indicate stakeholder status	Appendix D Fuels Infrastructure
48. All refueling/recharging sites in the coalition's geographic area listed on table	14	Page 14 states that additional sites are known, but did not respond to survey in time to be included in the plan. Also 14 EVs listed – no recharging sites listed.	Appendix D Fuels Infrastructure
49. If possible map of area sites and addresses included	App.	Maps indicating infrastructure throughout the State are provided	Maps Under Revision

50. Stakeholders commit to maintain and/or increase current refueling/recharging sites –	12 & 14	Per page 14, ". . . the number of E-85 stations in the Coalition area is expected to increase significantly under the Rock Hill Ethanol project." Per page 12, growth expected via the NEVC grant for the development of a U.S. Department of Energy Broad Area Application for the development and promotion of ethanol fueling infrastructure Table with projections not provided.	Appendix D Fuels Infrastructure
51. Projected stations place emphasis on public accessibility		Not stated, but needed to ensure a viable alternative fuel market. Please provide more information. Will public accessible stations be built? Will private accessible stations be opened to the public in the future?	Section VI, Pages 18-19 Appendix D Fuels Infrastructure and Grants page
52. Station projections meet the needs of AFV growth		Unclear, projections not provided	Section VI, Pages 18-21 Appendix D Fuels Infrastructure and Grants page
53. Projected refueling/recharging sites listed in table are the sum of current and projected stations		Unclear, projections not provided. Five year projections are required.	Appendix D Fuels Infrastructure and Section VI, Pages 18-21
54. Verify that the number of stations on the table are consistent with the numbers in the narrative		Unclear, projections not provided	Appendix D Fuels Infrastructure and Section VI, Pages 18-21
55. Verify that CNG stations are not residential systems		Unclear, projections not provided	Appendix D Fuels Infrastructure and Section VI, Pages 18-21
56. Station totals on table are correct		Unclear, projections not provided	Appendix D Fuels Infrastructure and Section VI, Pages 18-21
57. Refueling and Recharging site operator, location, address, name, e-mail, fuel provided listed		Not provided for existing stations; projections not provided. Required for existing and projected stations.	Appendix D Fuels Infrastructure and Section VI, Pages 18-21

<table>
<tr><td colspan="3">Goals, Action Steps with Completion Dates and Responsible Parties, and Monitoring

Goals overall: Many action steps reference 2002 activities. These need to be updated, or written in past tense, state what will be accomplished in the future. The goals are generic – not South Carolina specific - the plan needs to incorporate more South Carolina projects and specific goals/objectives. On pages 9-12 in the grant section, discussed significant current and/or future projects that the coalition is planning. But, much of the information is not included in the goal section. The current and/or future projects could be the basis for many detailed South Carolina specific goals and objectives.

Coalition addresses the following goals:
1. Increase Alternative Fuel Vehicles
2. Improve and Increase the Availability of Alternative Fuels and Vehicles
3. Improve Monitoring systems for the Use of Alternative Fuels and Vehicles
4. Improve Clean Cities Communication Network
5. New Stakeholder Recruitment

Recommend re-formatting this section to include the standard Clean Cities goals. See below.</td><td></td><td></td></tr>
<tr><td>58. <u>Goal A. Increase the Number of AFVs by 17% Annually</u>
Specific, measurable goals - Include specific stakeholder commitments, AFV purchases – Stakeholder specific commitments to purchase and use AFVs</td><td>16</td><td>Goal stated and light-duty AFVs projections grouped by federal, state, county and city, not by stakeholder and private fleets and medium- and heavy-duty not included. Other action steps with responsible parties and timeframes are identified clearly. Need to include individual stakeholder commitments/projections.

Recommend addressing each of the programs niche market fleets in detail.</td><td>Goals Section VII</td></tr>
</table>

Palmetto State Clean Fuels Coalition
Program Plan Review Checklist

59. Goal B. Increase the Number of Refueling/Recharging Stations to meet AFV growth projections *(emphasis on public accessibility)* Stakeholder specific commitments to increase infrastructure	17-18	Specific stakeholder commitments and five year projections need to be provided. In Columbia, coalition is encouraging the RTA to buy CNG buses - this should be as a "increase number of AFVs" goal. The station is addressed as an action step under the fueling goal, but that's only one piece of the project.	Appendix C Fleet Survey, Appendix D Fuels Infrastructure and Goals Section VII
60. Goal C. Recruiting new stakeholders *(w/ emphasis private fleets)* Specific fleets and stakeholders to be recruited and the recruitment strategy	14 16	The survey identified targeted private fleets for education/recruitment - 677 of the 2,980 (23%) private fleet vehicles are operated by rental car companies Fall 2002 conduct survey and create wish list, Spring 2003 make presentations. Wish list could be included as an attachment.	Appendix B Potential Stakeholder and Goals Section VII
61. Goal D. Promoting incentives to increase the use of alternative fuel Specific approach to increase alternative fuel use of AFVs already on the road	17	Stated as, "Increase the use of Alternative Fuel Vehicles" and "Improve and Increase the Availability of Alternative Fuels". More than 1,000 FFVs have been purchased in the last few years, recommend a specific "increase fuel use by the state fleet" goal.	Goals Section VII
62. Goal E. Outreach - Communicating Clean Cities messages to the public Specific outreach activities, including target audience and anticipated outcome of the activity	17-19	Addressed throughout goal section	Goals Section VII
63. Goal F. Fund Raising to Become Self-Sustaining Specific fund raising activities the coalition will take to become self-sustaining		The coordinator is funded through the designation process. The coalition plans to apply for SEP grants to assist with funding the coordinator in the future. What is the coalition's strategy to become sustainable?	Grants Pages 13-14 and Goals Section VII Page 33

64. Goal G: Legislation Specific goals and activities to educate policy makers about the benefits of AFVs and the Clean Cities program	16	Not stated as a specific goal, but included as an action step.	Goals page
Monitoring and Reporting			
65. Monitoring and reporting program to measure coalition's effectiveness and to report to the National Clean Cities Program and complete the annual report	20	Excellent!	Section VIII
Coalition Organization			
66. Coalition base identified – location, organization coordinator works for	22	Identified, location gleaned from cover page stationery. Co-coordinators LeAnn Herren and Wendy Bell both 0.5 FTE, from the University of South Carolina	Section IX, Pages 21 and 38
67. Organizational Chart	21	Excellent	Section IX, Page 37
68. Description of coalition as an organization	21	Excellent	Section IX
69. Committees, Working groups identified with names	22	Excellent	Section IX, Pages 37-40
Stakeholder and Contact Lists			
70. List of official stakeholders, which are MOU signatories, and their organization	App.	Phone numbers and e-mail addresses not included	Appendix B Stakeholder Commitment

71. List of Stakeholder Contacts – individual stakeholder, names, addresses, phone, fax, e-mail, websites, and brief description of organization – state if stakeholder currently operates fleet or will operate fleet in the future	App.	Sufficient information provided	Appendix B Stakeholder Commitment